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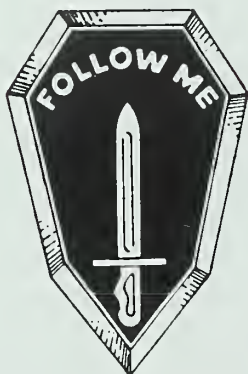
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P.B. 7-87-1 (Test)

JOHN O. MARSH, JR.
Secretary of the Army

MG KENNETH C. LEUER
Commandant, The Infantry School

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This medium is approved for official dissemination of material designed to keep individuals within the Army knowledgeable of current and emerging developments within their areas of expertise for the purpose of enhancing their professional development

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July-August 1987

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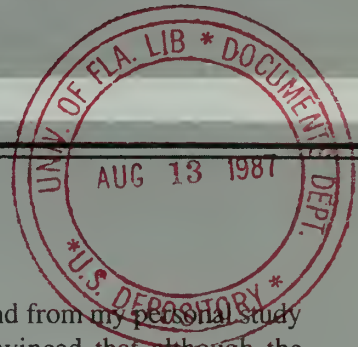
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Commandant's NOTE

MAJOR GENERAL KENNETH C. LEUER Chief of Infantry



SPIRIT OF THE BAYONET

Infantrymen everywhere will understand the pride I felt when I was told I was returning to Fort Benning to become simultaneously the Army's Chief of Infantry, the commander of the Infantry Center, and the Commandant of the Infantry School.

At the same time, though, that pride is overshadowed by my deep awareness of the heavy responsibilities that accompany this high honor, of the obligation to continue the work begun so well by my distinguished predecessor, Major General Ed Burba, and by the knowledge that the decisions made at Fort Benning bear directly on the infantry's role as the battlefield integrator of the Army's combined arms teams to fight, win, and live to fight again.

In the few weeks I have been here, I have found things exciting and moving on. I have particularly enjoyed renewing my association with the School of the Americas, an organization I came to know well when I commanded the 193d Infantry Brigade in Panama in the early 1980s.

The team on hand here is most impressive at all levels. I am especially pleased to have Brigadier General Barry McCaffrey with us, for he brings to his position as Assistant Commandant an Army-wide reputation as an infantry warrior imbued with the "spirit of the bayonet."

I feel fortunate to have come to Benning fresh from an assignment as commander of the 5th Infantry Division (Mechanized). The experience I gained in that position combined with the perspective offered by my present one give me a good awareness of the needs of our infantrymen in the field and a recognition of the things we must do to meet those needs. I also bring with me a set of values that have guided me throughout the years and will continue to guide me in the months ahead—DO WHAT IS RIGHT in TRAINING, CARING, and COMMUNITY.

From my own experience and from my personal study of the military art, I am convinced that although the combined arms team is unquestionably the tool of victory, within that team the Infantry is the key element. It is both the integrator that brings together and the seal that holds the effectiveness of the other weapons and arms. The infantryman has the toughest job of all, for he is at the cutting edge, putting together the combat power at the point of decision.

Accordingly, his weapons and equipment must be the best we can design. His training must fully prepare him—physically, mentally, and morally—to win, if necessary, against numerical odds. His leadership must be positive, proficient, firm, and completely professional. Therefore, we must do what is right to achieve total success in all of those areas.

Training, of course, is what we are all about. Training is everything and everything is training. I have spent a lot of time with infantry units in the field. Some of what I have seen has pleased me; some of it has not. We sometimes appear to have forgotten what we once knew about basic infantry soldiering and battlefield survival.

We must not forget that the individual soldier is still the ultimate weapon on the battlefield. If he is taught the basics of infantry soldiering, and if he is required to practice those skills over and over to certain standards, then we will all stand a far better chance of winning the next battle.

Every infantry leader must learn the basics of infantry soldiering. They should know and demonstrate to standard their knowledge of the capabilities and limitations of their weapon systems and how those systems function; they must know how squads, platoons, and companies maneuver on a battlefield; they must know and understand battlefield administration and logistics; they should learn all they can about battlefield communications; they must learn how to read terrain and how

to use the terrain on which they find themselves; and they must understand and use all available Army aviation and Air Force tactical air assets in their training scenarios. These last two constitute a key aspect of our AirLand Battle doctrine, and the infantryman and the aviator must learn how to work together effectively.

At the same time, every infantryman must be completely professional in his appearance and attitude, disciplined, and physically fit. To be a good infantryman, a soldier must have discipline, self-respect, pride in his uniform and his country, a high sense of duty and obligation to his comrades and his superiors, and a self-confidence born of demonstrated ability. To paraphrase an old Army saying, "Who ever saw a soldier with low self-esteem wearing a medal?"

We will do our best to see that all of our students learn the basic infantry skills before they leave Benning, and that they are professionals in the truest sense of the word, disciplined, and fit to fight.

All of us in positions of responsibility must also help our soldiers and their families to grow. The health of our Army—its readiness—depends upon the health of its soldiers and their families.

At all levels of command, we are all concerned with resource management—budgets, dollars, manpower spaces, energy conservation, and the like. We work hard to apply good resource management to our field training, external evaluations, SQTs, maintenance activities, and all the rest. And we talk a lot about taking care of our soldiers. But do our words manifest themselves in actions that our soldiers can see as tangible evidence that we truly care? It isn't simple in these days of limited resources to do that. All too often the soldier is the one who bears the major share of the disadvantages caused by resource constraints, most often in the form of poor training.

The heart of the Army is the management of human resources; it is what complete leadership is all about. Existing within our total package of human resource management, therefore, are such activities as in-processing, assignments, job training, awarding of MOSs, and increasing qualifications for greater responsibility.

Inseparable from these more definitive areas of resource management are such considerations as housing, medical care, recreation, off-duty education, religious programs, safety, counselling, law enforcement, and all the other similar areas that influence a soldier's satisfaction and well being.

If we try to manage all of these programs in isolation from each other, if we do not consider the effect of one on the others, we are not really taking care of our soldiers and their families.

This is the kind of management and the kind of leadership we will achieve at Fort Benning and the kind we will emphasize to students at the Infantry School.

Hand-in-hand with our concern for our soldiers and their families must go an equal concern for establishing and maintaining the best possible relations with the various civilian communities outside our gates. The time has long passed when we could close off those communities at the front gate. Today, we depend too heavily on them and they on us, and we simply cannot ignore each other's problems.

Finally, I have been charged with being the single proponent for the infantry spectrum, and the spokesman for all of the infantry as well, remembering that my decisions must be for the good of the Army and not for that of special interest groups.

As one of my predecessors put it, "There is indeed only *one* infantry (with a capital 'I'), but at the same time, there are *several* *infantries* (generic, with a little 'i')." To my mind, every infantryman, no matter the label that might precede his name, is an infantryman first and his basic mission has not changed since 1775. That mission is to get to the battlefield and close with the enemy by fire and movement to destroy or capture him, or to repel his attack by fire, close combat, or counterattack. That is the true "spirit of the bayonet."

We cannot afford to have infantry officers and non-commissioned officers hold views so narrow and be so specialized that they cannot serve effectively in different types of infantry units anywhere in the world. They must receive training and experience in a total environment involving branch specialty, combined arms, and joint and combined operations.

In this year in which we celebrate the bicentennial of our Constitution, no American has greater cause for pride in our 200 years of free existence than he who now wears, or has worn, the Infantry's crossed rifles. The Infantry has always been there, in every crisis from Concord Bridge to the present.

We face awesome challenges, and today's infantrymen must prove better, more capable than the soldiers of any previous era of history. They must extend themselves to reach a standard of excellence never before achieved by the line soldier.

At the Home of the Infantry—and every infantryman is a part of the Infantry School—we need your ideas, suggestions, and feedback if we are to give our infantry soldiers the equipment, doctrine, and leadership they will need to fight, win, and live to fight again. In the "spirit of the bayonet," then, talk to us, write to us, give us your ideas. The key to success is open and frank communication. Together we will continue to produce the best infantry soldier and leader in the world.

INFANTRY LETTERS



STAFF RIDES

Congratulations to Captain Derek A. Miller for his splendid article "Historical TEWT" (INFANTRY March-April, 1987, pages 22-26) and to the leaders of the 1st Battalion, 16th Infantry, for their outstanding use of military history for the training and education of soldiers.

The battalion's study of those European campaigns and tours of battlefields constitute what we at the Center of Military History call a "staff ride." This is a traditional term that first appeared in the summer of 1906 when Major Eben Swift, then assistant commandant of what is now the Command and General Staff College (CGSC), took 12 officer-students to study and to visit Chickamauga Battlefield.

For five years the staff ride was an important part of the CGSC curriculum. Thereafter, it seems to have fallen into disuse until a slow revival began in the late 1960s and early 1970s. Professor Jay Luvaas, now on the staff of the Army War College, performed yeoman's service in redeveloping the staff ride technique on our nation's battlefields and in our service schools.

These new staff rides are a far cry from the relatively simple affairs of earlier years. Historical knowledge about all battles has advanced significantly. Military history as a specialized field of historical study has progressed since the first staff ride and has provided a certain rigor to the exercise that had been lacking in earlier versions.

Since its reestablishment, the staff ride has earned accolades from students, faculty, and unit chains of command as one of the most powerful techniques of instruction available for the education of professional soldiers.

In 1986 the Center of Military History was designated the coordinator of the Army's staff ride program. In January 1987 we published a preliminary version

of the booklet *The Staff Ride*, which was written by the Combat Studies Institute at Fort Leavenworth. The booklet was designed for use by planners of staff rides, and it outlines flexible and practical procedures for successful exercises. This booklet was distributed to the Army's service schools and the United States Military Academy, with publication and Army-wide distribution of a reduced-size final version expected this summer.

In summary, I am delighted that the 16th Infantry is in the forefront of this important initiative as it has been so many times in previous Army operations. I encourage the continued use of the staff ride technique in developing leaders. It can introduce them to the benefits of military history, supplement current doctrinal, operational, and technical knowledge, and improve unit esprit de corps and cohesion—those intangibles that are the keys to winning future battles.

WILLIAM A. STOFFT
BG, U.S.A.
Chief of Military History

I was delighted to read Captain Miller's article "Historical TEWT" in INFANTRY. As the TRADOC proponent for the "staff ride," the Army's formal term for what Captain Miller has called a "historical TEWT," I was pleased to see that the article addressed the value of this technique in training and professional development.

There has been an increased emphasis on the use of the staff ride within TRADOC. Each branch school must conduct one in its officer advanced course, and the ROTC Cadet Command is conducting voluntary staff rides in increasing numbers. I believe that articles such as Captain Miller's will do much to dispel the perception that the staff ride is solely a schoolhouse operation and beyond the

capabilities of maneuver or support elements of the Army.

During the school year, our Command and General Staff College students are taught the battle analysis methodology used in conducting staff rides, and many students also participate in our Chickamauga Staff Ride elective. I would like to reprint the article for distribution to the student body here, because it reinforces our instruction and is a well-written primer on the staff ride. We think it should be in the training packets that CGSC students take with them as they return to the Army in the field.

LOUIS D.F. FRASCHE
COL, Infantry
Combat Studies Institute
Fort Leavenworth, Kansas

I was delighted to read Captain Derek Miller's account of how the 1st Battalion, 16th Infantry, 1st Infantry Division (Forward) used history in its training program. For several years now TRADOC has been emphasizing this same technique, although by another name—"the staff ride."

The U.S. Army Center of Military History has recently printed and distributed a final draft of a "how to" pamphlet entitled *The Staff Ride*, by William G. Robertson. Additionally, the Combat Studies Institute at Fort Leavenworth is preparing an Army-wide "how-to" video tape on the staff ride, which should be available for distribution in October 1987.

The staff ride pamphlet states, "Different from tactical exercises without troops or from battlefield tours, staff rides combine a rigorous course of historical preparation with an examination of the terrain on which an actual battle occurred." Clearly, this is exactly what the 1st Battalion, 16th Infantry did. Captain Miller's article is a perfect example

of how units can conduct exciting and realistic training with a historic basis.

As a member of the 16th Regiment (The Iron Rangers), I'm proud that they are leading the way in using this old and traditional method of training. The Iron Ranger staff ride is a perfect example of how units in the field can conduct this training and of the numerous benefits of this technique.

KENNETH R. PIERCE
LTC, Infantry
Military History Education
Committee
Combat Studies Institute
Fort Leavenworth, Kansas

BATTLES AND BATTLEFIELDS

It was a great pleasure to read "Historical TEWT," by Captain Derek A. Miller. This technique is an excellent idea and holds many advantages.

Captain Miller and other INFANTRY readers may be interested in a book distributed by the 82d Airborne Division Association entitled *The March to Victory*. It is a guide to World War II battles and battlefields from London to the Rhine. It not only gives the history of the battles but has detailed maps showing the locations of all museums and monuments.

Anyone who is interested may contact Dan Campbell, Secretary, 82d Airborne Division Association, P.O. Box 1442, Bloomington, IN 47402.

EDWARD A. ROCK, SR.
China Burma India Veterans
Association
Munhall, Pennsylvania

OTHER HISTORICAL SOURCES

Major Glenn W. Davis's article "Unit Histories: A Guide to the Agencies That Can Help" (INFANTRY, January-February 1987, pages 13-14) is quite informative. Unfortunately, it only scratches the surface of the great number of resources available.

The best place for a new unit historian to start is AR 870-5, Military History:

Responsibilities, Policies and Procedures. It gives detailed information on the Annual Historical Review, organizational history programs, preparation of unit histories, organizational history files, lineages and honors, and historical records and source material.

DA Pamphlet 20-200, The Writing of American Military History: A Guide, is also an excellent source guide for the research and writing of unit histories, and other valuable Army publications are:

- AR 840-10, Flags, Guidons, Streamers, Tabards and Automobile and Aircraft Plates.
- AR 870-20, Historical Properties and Museums.
- DA Pamphlet 672-1, Unit Citation and Campaign Participation Credit Roster.
- DA Pamphlet 672-3, Unit Citation and Campaign Participation Credit Roster, January 1960-February 1986.
- DA Pamphlet 870-2, The Military Historian in the Field (written for field representatives of the Office of Military History, but it has excellent tips on techniques for gathering historical information).
- CMH Publication 70-3, Guide to the Study and Use of Military History.
- CMH Publication 105-1, Guide to the Publications of the U.S. Army Center of Military History.

In addition, the following books may be available in local libraries:

- *A Guide to the Sources of United States Military History*, by Robin Higham.
- *Histories of American Army Units, World Wars I and II and the Korean Conflict with Some Earlier Histories*, by C.E. Dornbusch.

Historical records of many U.S. Army units that existed before 1933 can be found in the National Archives, 8th Street and Pennsylvania Avenue, N.W., Washington, DC 20408. A request for records should include a copy of the unit's lineage and honors so that archivists can properly identify the unit.

A unit that was inactivated for a period of time can request its retired organizational history files from HQDA, ATTN: DAMA-HSO, Washington, DC 20314.

Unofficial photos of U.S. Army history

from the Mexican War to the present may be available from the U.S. Military History Institute, Carlisle Barracks, PA 17013-5008.

Other sources of information are post and branch museums, service school technical libraries (the Infantry School, for example, has an excellent collection of published and unpublished unit histories), college libraries, and post or service school historians. Although few libraries or museums have the staff to do a unit historian's legwork for him, they can often point him in the right direction.

Finally, sister units that may share the same regimental designation or lineage—in the Army National Guard and Reserve as well as in the Active Army—may be able to provide valuable historical information or an actual prepared unit history. The Organizational History Branch of the U.S. Army Center of Military History, Pulaski Building, 20 Massachusetts Avenue, N.W., Washington, DC 20314-0200, can help identify these units.

KEVIN M. BORN
CPT, Infantry
Berlin Brigade

MAYBE IT'S TIME

I read Captain William C. Mayville's article "A Soldier's Load" (INFANTRY, January-February 1987) with a great deal of interest and a significant amount of concern about what we are about to do to our already overburdened Infantry soldier.

Specifically, the Army is preparing to issue him a replacement for the 5.5-pound M72A3 LAW that weighs 15 pounds, is 40 inches long, and requires a special jump pack. Bear in mind that our soldiers currently can carry three or four LAWS per man, depending on the mission. (Airborne, Ranger, and Special Operations units currently jump that many, secured externally to their rucksacks.) When they land, they are ready to fight and do not have to fumble around with a bulky canvas container.

Captain Mayville's risk analysis ap-

proach for lightening the soldier's load must now address a "mission load" item that almost triples the load on a foot soldier. Those of us who, in the past, have humped and jumped the old loads can only marvel at what the Army has done in its "attempts" to take care of the troops.

Maybe it's time for the Infantry Association to be resurrected and a strong, united voice raised in concern, with responsible solutions offered from those who have been in combat.

Maybe it's time, because we are tripling the weight, increasing the length, and paying three or four times as much for a system that will probably not increase our soldier's fighting capability by a similar ratio. And maybe it's time for my good friends and former comrades-in-arms who are in positions of leadership and trust to stand up, look at themselves in a mirror, and call a halt to unwise decisions that often have not been made in the best interests of those they are sworn to take care of. Lightening their load would be a first step.

THOMAS A. SIMCOX
LTC, Infantry
U.S. Army Retired
Huntsville, Alabama

LOAD PLANNING

I am pleased with the attention now being given the issue of the infantryman's load. I am dumbfounded, however, by the lack of coordinated systems approach to squad and platoon level load planning. Take, for example, the selection of the new squad automatic weapon (SAW). The addition of a weapon that uses belt-fed ammunition, even though of the same type carried by the rifle team members, adds perceptibly to the load placed on the squad. Further, it is carried in a form that cannot be used by any other member of the squad.

Instead of optimizing weapon systems, we ought to optimize the *squad*, and one of the key criteria should be the aggregate weight carried by all members. My instincts tell me that would lead to a squad automatic weapon that would fire 30-round or 40-round magazines instead

of belts. This would lighten the load and, in an emergency, would give other members of the squad quick and easy access to the ammunition allocated for that weapon.

MICHAEL J. BAYER
LTC, Infantry
D.C. Army National Guard
Washington, D.C.

MOUT TRAINING INADEQUATE

Success in low-intensity conflicts will depend on the ability of the various services to work jointly and to be able to master a variety of difficult and complex tasks. These tasks are made even more difficult by rapid industrial development and increasing urban sprawl. In fact, most of these conflicts will be fought on urban terrain. Whether in the defense or in the offense, this will mean detailed planning, the efficient use of resources, a complete knowledge of weapons and their effects, and the use of all the elements of the combined arms team.

In any review of U.S. doctrine on urban warfare, the Army is the primary focus because it will be involved most often in city fighting. The problem is that there seems to be a conflict in the Army's tactical doctrine. FM 90-10, Military Operations on Urban Terrain (MOUT), stresses that "urban combat operations are conducted only when required" and that built-up areas are to be "isolated and by-passed" rather than risk a costly, time-consuming operation in this difficult environment. FM 71-2 states, however, that "military operations in built-up areas are an integral part of combat operations," and FM 100-5 terms these operations "unavoidable." FC 100-20 states that "operations in an urban environment require different emphasis and different techniques from those in rural areas" but contains little discussion of these differences.

Stated simply, conflict on the low-end of the intensity scale is difficult to categorize, and MOUT is not the type of combat the Army would like to be engaged in. Nevertheless, the growth of urban areas will increasingly require military forces to operate on urban terrain.

The Army must therefore take steps to prepare its forces to conduct MOUT in a low-intensity environment. And because MOUT battles are fought by small units, the burden of leadership is placed on the small-unit leader.

Urban fighting consists mainly of close, violent combat. Add to that the psychological nature of low-intensity conflict, and it becomes clear that soldiers must be highly trained and well prepared. This includes being able to communicate and conduct resupply operations, and also knowing building types and weapons effects.

The three-dimensional character of urban fighting (in multi-story buildings; at ground level; and in subway tunnels, sewers, and other underground passages) also contributes directly to the stress of urban battle. Hard realistic training can greatly reduce this stress.

I believe that current doctrine as reflected in FC 100-20 and ARTEP 7-15 needs to be revised to emphasize training in the doctrine and techniques of urban warfare.

Effective training is the single most important activity for a unit during peacetime. Commanders must understand this need to prepare for low-intensity conflict and must teach their soldiers how to fight on urban terrain.

CHARLES M. AYERS
MAJ, Infantry
Langley AFB, Virginia

MANUSCRIPTS SOLICITED

The Texas A & M University Press has initiated a new military series that will allow for a wide range of military subjects, with preference given to the modern era. Manuscripts of topical interest, along with those that interrelate with other disciplines, are especially invited.

Inquiries should be addressed to the director or editor of the Texas A & M University Press, Drawer C, College Station, TX 77843-4354; telephone (409) 845-1436.

LLOYD G. LYMAN
Director

INFANTRY NEWS



THE U.S. ARMY INFANTRY Board submitted the following news item:

The Mounted Ration Heating Device (MRHD) underwent user testing and experimentation by the Infantry Board from 2 February through 13 March 1987 at Fort Benning.

The device had demonstrated its potential operational suitability and military utility in October 1982 during the Force Development Test and Experimentation of the combat field feeding system (CFFS). (See *INFANTRY*, May-June 1985, page 9.) Following these tests, the MRHD was separated from the development of the other CFFS equipment to expedite its fielding.

This lightweight, reusable heating device can be mounted in combat vehicles and used to heat the Meal, Ready-to-Eat (MRE) entree and water for instant-type beverages. It has a single continuous heating element contained in a collapsible fabric case with four individual pockets. MRE pouches and individual disposable water pouches, in any combination up to four, can be heated simultaneously.

The device's power cable has an on/off switch and uses an assortment of connectors and plugs that mate with auxiliary and utility power receptacles of combat vehicles. A nylon strap, with hook and loop fasteners, is provided to secure the MRHD to a vehicle. Three magnetic strips are located on the bottom to help secure it to metal surfaces inside a vehicle.

In the recent tests, MRHDs were used to prepare meals by soldiers of the 197th Infantry Brigade during a normally scheduled brigade FTX and during scheduled maintenance in garrison. (The test was designed to cause minimal interference with the units' scheduled training.) One MRHD was provided for each tracked combat vehicle participating in the test.

Data figures were collected regarding the ability of the MRHD to heat water

and MREs, the compatibility of its connectors and circuitry with those of wheeled and tracked vehicles, human factors, safety, logistical supportability, reliability, and maintainability.

A separate series of closely controlled exercises was conducted simulating vehicle operation in an NBC environment.

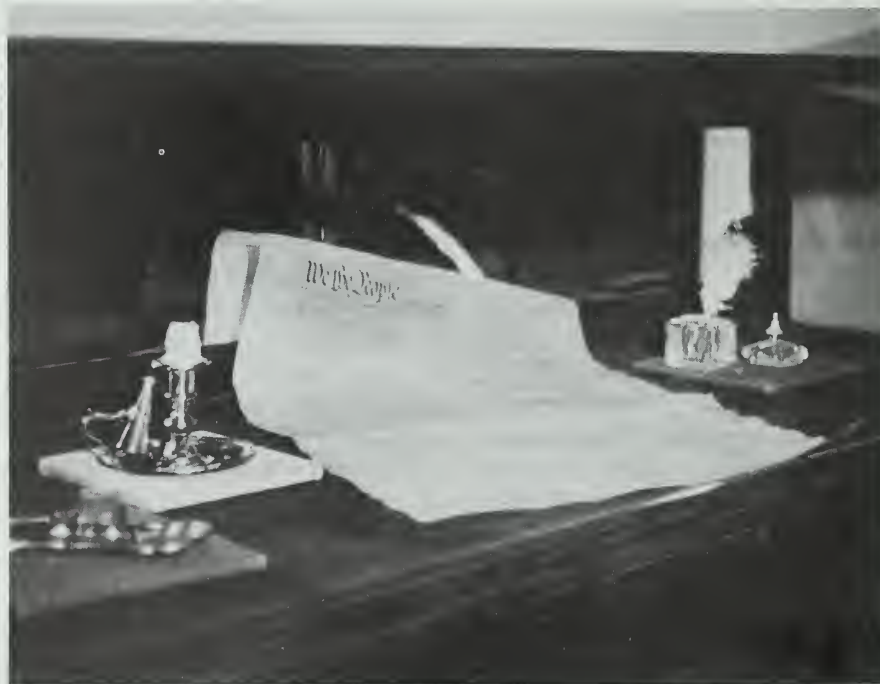
The MRHD was operated in one of each type of tracked vehicle available with the vehicle fully loaded with troops and TOE equipment and simulating overpressure operation.

The U.S. Army Quartermaster School will use the test results in making recommendations regarding type classification.

THE NATIONAL INFANTRY Museum, at Fort Benning, has put together several special exhibits recently for special occasions. One titled "Building on Leadership and Education" recognized the 69th anniversary of the Infantry School. Another was in support of

interest, and parts of it have been shown in other locations on Fort Benning.

One exhibit was taken to the Columbus Convention and Trade Center for the Georgia Red Carpet Tour, which was an effort to attract industry to the area, and a guided tour of the Museum was offered



Constitution display

Fort Benning's annual West Point Founders Day celebration.

A display was prepared about the 10th Mountain Division, a brigade of which is now stationed at Fort Benning.

The long-term display for the 200th anniversary of the Constitution has been of

to visitors attending that meeting.

The 11th Airborne Division has presented the Museum with an extremely fine bronze bust of General Joseph Swing, 11th Airborne commander during World War II. Also given was a stained glass panel depicting the 11th Air-

borne Division shoulder patch. Both items were presented in conjunction with the dedication of the Airborne Walk at Eubanks Field recently.

Some other recent acquisitions are:

- A complete general officer uniform of the Army of the Federal Republic of Germany, donated by Brigadier General (Retired) Peter Pichler, who wore it during his career.

- A fur-lined white leather jacket made in Italy for use by German forces in World War II, which was brought back by an officer of the 88th Infantry Division and donated by his family.

- Viet Cong equipment, including stick grenades, captured by the 3d Brigade, 1st Infantry Division, during Operation Attleboro.

- A pair of World War II mountain boots worn by a member of the 86th Mountain Infantry Regiment, 10th Mountain Division, in the North Apennines and Po Valley campaigns.

- A War of 1812 linsey woolsey enlistment coat restored to excellent condition.

- A painting by Jo Karl of American soldiers in Italy during World War II.

- A number of good reference books and periodicals.

- A large, signed photograph of General George C. Marshall.

- A hardtack-style ration of Spanish-American War vintage, unique in that consumables are rarely kept as war memorabilia, especially from that time period. (The ration measures three inches square by one-half inch thick and is marked with penned handwriting: *Cuba must be free, Remember the Maine, sunk in Havana Harbor Feb 15 98, and From Co. "A" 6th Regt, Sept 7th/98.*)

The M4A2 Sherman tank shown on the Museum's grounds has been painted in the camouflage pattern used during the Italian Campaign in World War II. The M41 Walker tank has also been repainted, standard as for the Korean War.

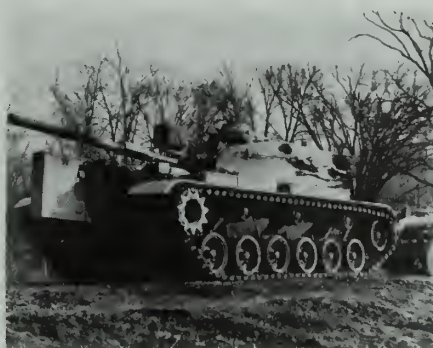
The National Infantry Museum Society, formed at Fort Benning a number of years ago to assist the Museum with financial and volunteer support, is open to anyone who is interested in joining. The cost is \$2.00 for a one-year membership or \$10.00 for a lifetime membership.

Additional information about the Museum and the Society is available from

the Director, National Infantry Museum, Fort Benning, GA 31905-5273; AUTOVON 835-2958 or commercial (404) 545-2958.

CLAMS, THE ARMY'S NEW cleared lane marking system, which is now in production, will be used to help vehicle drivers follow safe paths cleared through minefields.

Mounted on the rear of a lead minefield breaching vehicle, it dispenses markers fitted with colored flags that the drivers of the following vehicles can easily see and follow during the day. Chemolumi-



nescent lightsticks are also provided for night operations.

A device attached to the lead vehicle's odometer controls the dispenser and drops the markers at constant intervals.

The procurement of CLAMS will provide a key component of the Armor countermeasure system. Initial CLAMS units are scheduled for delivery between November 1987 and February 1988.

THE U.S. ARMY PARACHUTE Team, The Golden Knights, is accepting applications for this year's tryout program for the 1988 demonstration season. The tryouts will be conducted from 2 October through 12 November 1987.

Applicants must be active duty enlisted soldiers with perfect military and civilian records. An applicant must have at least 150 free-fall parachute jumps and be willing to attend the Basic Airborne Course if not already jump qualified.

Finally, applicants must meet current PCS requirements and have at least three years remaining on active duty status, or be willing to extend or re-enlist to meet

this requirement if selected to the team. Soldiers who do not meet these requirements will not be considered for the tryout program.

Any soldier, male or female, who is interested in trying out for the team may obtain an application by sending a self-addressed, stamped envelope to Commander, U.S. Army Parachute Team, ATTN: Operations (Tryouts), P.O. Box 70126, Fort Bragg, NC 28307-0126; or by calling (919) 396-2036/1539 or AUTOVON 236-2036/1539; MSG Tom Bennion or 1SG Fred Patterson.

Applications, when completed, should be mailed to the same address to arrive no later than 17 August 1987. Anyone selected will be placed in either a TDY or a special duty status.

MORE HMMWVs (High-Mobility Multipurpose Wheeled Vehicles) will be built and some existing vehicles will be modified under a recently awarded addition to an existing contract.

The addition calls for the modification of 14,980 HMMWV armament carriers to add brackets that will enable soldiers to stow equipment and weapons inside the vehicles.

The original HMMWV contract called for the production of 55,000 vehicles in five basic models and 15 different configurations. It also contained an option to increase the number purchased by 100 percent during each of the option years.

Thus far, the Army has ordered an additional 5,000 vehicles, bringing the total buy to 60,000. More than 25,000 HMMWVs are now in use by U.S. armed forces units at 250 locations around the world.

SPECIAL FORCES is being established as a separate career branch as part of the Army's efforts to strengthen the capabilities of its special operations forces.

The activation of the new officer career branch, which is represented by crossed arrows insignia, is expected some time before October.

Although Special Forces units have existed since 1952, today's doctrine calls

for their employment in a broad range of unique missions. The new branch will also insure that highly trained and qualified officers are available in sufficient number for competitive assignment to Special Forces jobs.

Special Forces branch will be open to male volunteers of all Army branches, and upon successful completion of the initial Special Forces qualifying course, soldiers will be permanently designated as members of the Special Forces branch.

The Special Forces branch will consist of all commissioned, warrant, and non-commissioned officers who hold the Special Forces designator. Rangers, psychological operations, and civil affairs soldiers will not be included in the Special Forces branch but will be managed separately.

The responsibility for Special Forces doctrine and training will continue to rest with the John F. Kennedy Special Warfare Center and School at Fort Bragg.

THE SCHOOL OF CADET Command has moved from its temporary home at Fort Benjamin Harrison, Indiana, to Fort Monroe, Virginia, home of its parent organization—the U.S. Army ROTC Cadet Command.

The move is expected to improve the school's ability to coordinate and interact with the Cadet Command and to streamline the ROTC system to be more responsive to the needs of the Army.

The mission of the school is to train the men and women who teach and train the future officer leadership of the Army; more than 70 percent of newly-commissioned second lieutenants are products of the ROTC system. Among the "user-unique" skills taught at the school are recruiting, marketing, retention, training, and teaching.

Students at the school include newly assigned ROTC Cadet Command brigade and battalion commanders as well as assistant professors of military science and senior noncommissioned officers. Battalion commanders also serve as professors of military science.

During the fiscal year, 17 classes of 40 students each will be trained at the School of Cadet Command. Next fiscal year, the number of classes will be expanded to 20

sessions of 40 students each. The course consists of eight days of hands-on instruction.

The plan of instruction allows the ROTC Cadet Command to train about one-third of its teaching and administrative staff each year. As most personnel spend three years with the ROTC Cadet Command, this cycle allows for the systematic training of incoming personnel.

THE DISTRIBUTION AND Illumination System, Electrical (DISE), now being developed, has been delivered to the Aberdeen Proving Ground for initial production testing and to Fort Hood for operational evaluation as part of the Army's Commercial Generator Sets and Assemblages Program.

DISE consists of five man-portable end items: three-phase 100 amp/phase and 200 amp/phase feeder systems; three-phase 40 amp/phase and single phase 60 amp distribution systems; and a utility assembly consisting of extension cables and branch circuits with receptacles and



lights. Additional components are also available for special requirements.

This arrangement allows the user to select only the equipment that is essential for use with generator sets producing from 5 to 100 kilowatts of power. Depending on their size, tactical units will be able to establish operations one-half hour to four hours after arriving at a site.

To transmit power in the field, troop units are now using a 25-outlet 1.5-kilowatt light set and a 15-kilowatt illumination set, equipment that falls far short of meeting the Army's power distribution requirements.

THE U.S. SPECIAL OPERATIONS Command went into operation as a new unified command 16 April 1987. It consists of all special operations forces stationed in the United States, with the exception of Naval Special Warfare Groups, which are already assigned to work with other unified commands. USSOC forces include the Army's Rangers, Special Forces, psychological operations units, and civil affairs units, plus the Navy's Special Warfare Command and the Air Force's First Special Operations Wing.

The U.S. Readiness Command (REDCOM) at MacDill Air Force Base, Florida, will later be disestablished, making facilities available to the new command.

Other plans call for a formal USSOC activation ceremony later this year and for the designation of the U.S. Army Forces Command (FORSCOM) at Fort McPherson, Georgia, as a specified command, to which most of REDCOM's missions and functions will be transferred. The remainder of REDCOM's missions will be transferred to other unified commands and to the joint staff, Organization of the Joint Chiefs of Staff.

WESTCOM (U.S. ARMY Western Command), headquartered at Fort Shafter, Hawaii, is being redesignated the U.S. Army, Pacific (USARPAC).

U.S. Army, Japan (USARJ), which has been a separate major Army command in the Pacific, will be subordinate to USARPAC.

The reorganization is designed to improve unity of command and command readiness, and to improve operational planning capabilities. The change is being accomplished within present Army manpower and funding ceilings and with minimal relocation of personnel.

In addition to USARJ, USARPAC will command the U.S. Army Support Command, Hawaii; 45th Support Group; 25th Infantry Division (Light); U.S. Army Readiness Group, USARPAC; IX Corps (Augmentation), all headquartered in Hawaii; and the U.S. Army Chemical Activity on Johnson Atoll. USARPAC will also have operational control of the 1st Battalion, 1st Special Forces Group on Okinawa.

PROFESSIONAL NOTES



Brute Strength, Not Finesse

LIEUTENANT GENERAL WILLIAM R. DESOBRY, United States Army Retired

In considering military operations on urban terrain (MOUT), I can't help coming to a personal conclusion that our doctrine and subsequent manuals tell us what to do but tell us very little of the how to do it. On the basis of my experience in World War II, I would like to describe the "how to do it."

In reality, I have little if any quarrel with the doctrine I have seen recently, but like a lot of our writings, the procedures seem to call for finesse when brute strength is more appropriate.

Ever since my early days, we have always said that tanks are handicapped in town, village, or city fighting—all true. But this doesn't mean that they can't be or shouldn't be used. It is certainly true that they are vulnerable if they are not used with proper care and discretion. I would only point out that the foot soldier is also quite vulnerable—who or what isn't? The real problem is that many interpret the doctrine as saying, "Don't use tanks in village or town fighting—this is a job for the foot soldier going from house to house, preferably over the roof tops." This is great theory but lousy practice. Let me try to explain.

Looking back on my experience, there were essentially two types of village fighting—one where we were on the move in battalion task force configuration advancing 10 to 15 miles per day, and the other where we were confronting a fixed enemy and were attacking to

create breakthrough and war of movement conditions. In the first condition, speed of action was called for, while in the second it was more of a deliberate action. The villages or towns I am talking about are the typical small towns or villages prevalent in France, Belgium, and Germany.

APPROACH

We would approach these villages moving down a road in attack formation. In practice we were terribly road-bound, so we normally moved on roads until shot off, then maneuvered and fought through fields and meadows. When we reached a point about 1,000 to 1,200 meters from the front edge of a village, we would usually come under long range fires. At times, however, a village would be quiet but we could sense it was occupied and defended because there was no sign of people moving about, and it normally was barricaded.

At this time the point would deploy and throw in some long range tank main gun fires at the top story windows and the church steeple to suppress or knock out observation and observed direct fires. Hopefully, white flags would show and the defenders—if any—would depart, sending out civilians to say there were no enemy troops left in town. But this did not happen frequently, so let's assume we

had to fight to take the town.

The task force commander—along with the advanced guard commander, the main body commander, and the artillery liaison officer—would move up to the point position. The situation was reviewed from an observation post, and a scheme of maneuver plus fire support plan was devised. A typical scheme of maneuver is shown in Figure 1.

The point—now joined by battalion 81mm mortars plus assault guns and tank destroyers (TDs)—would lay down direct fire all along the forward houses in the village, concentrating on possible observation points. The mortars would lay down smoke and fire white phosphorus (WP) rounds into the village, particularly to start roof fires. The supporting artillery unit would also fire into the village.

Under this preparatory fire, the enveloping force heavy in armored infantry plus some tanks—say a rifle company plus a platoon of tanks—would move to the selected flank. Hopefully, the armored infantry could move close to the village in their half-tracks before dismounting, but this was seldom possible as the half-tracks were essentially road bound. The tanks and the armored infantry would then move together under cover of the artillery and mortar fires. The tanks would provide close-in supporting fires. The infantry would move into the first row of buildings and would

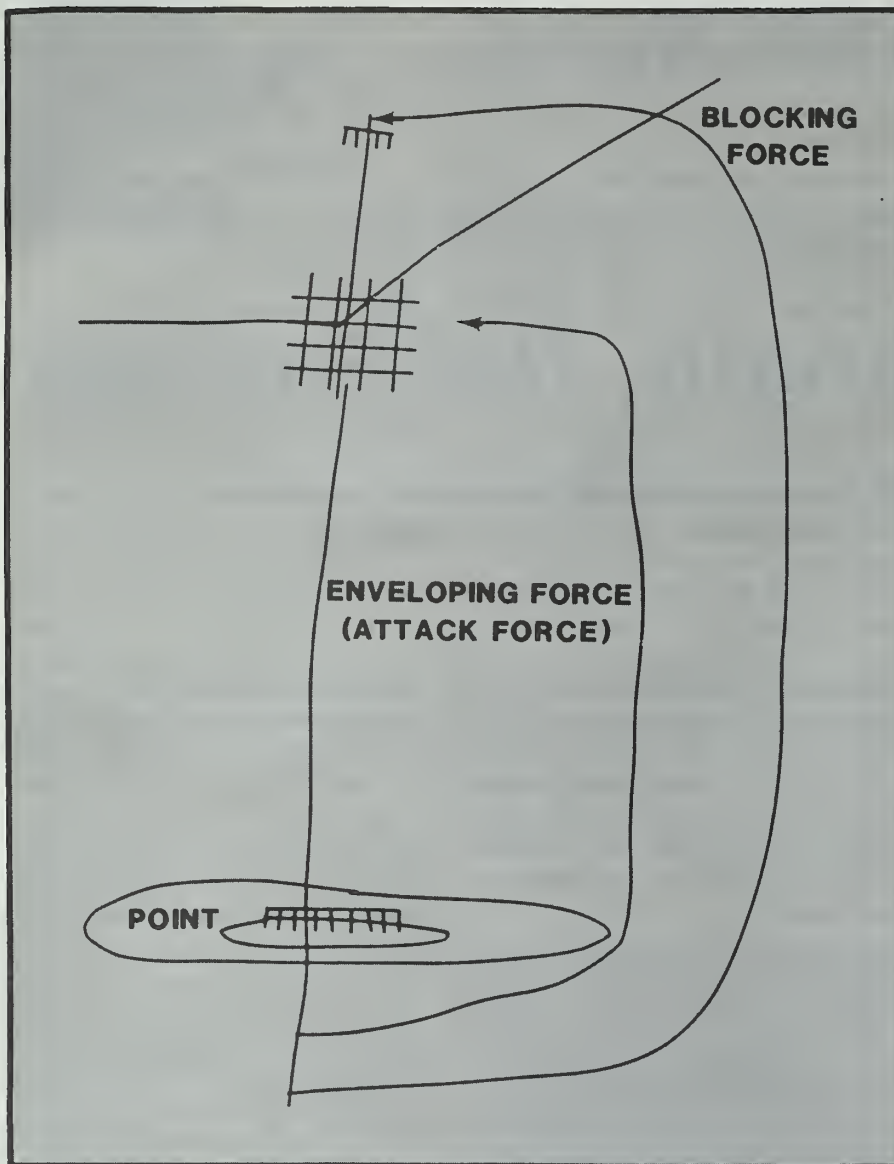


Figure 1

mark their seizure with signal flags or engineer tape. If the buildings were close enough together our men would try to go from roof to roof and fight down as prescribed in the present doctrine. This was seldom possible in village fighting, though, and shouldn't be counted on. Once the buildings in the first row were occupied, the infantry guided the tanks into the village to covered fire positions.

In the meantime, a small blocking force moved around the village to block off the rear—usually a platoon of tanks plus a platoon of armored infantry. If this succeeded, and it didn't always, this served to cut off enemy reinforcements, resupply, and medical evacuation. It was also quite an inhibiting factor because it often caused the enemy to bug out or quit.

If this blocking force couldn't make it, it joined and became part of the enveloping force.

Now the tough job of clearing out the other houses started. This was done by having the tanks fire at any occupied houses through their windows and walls—AP followed by HE. The infantrymen went through windows or doors—throwing grenades, then moving in firing their weapons, and using bazookas whenever they had them. The scheme was to shoot or burn the enemy out of the upper floors and drive him out of the house or into the basement where he couldn't see and couldn't fight; then he could be flushed out with grenades and bazooka fire.

We relied on firepower wherever possible. For example, if we could drive a

tank up to a window and poke the main gun through the window and fire the gun inside the house, we did so. What I am trying to portray here is that we learned to bash our way through a village. There was little finesse involved. Tanks were guided from place to place by the armored infantry soldiers with the tank commanders going on foot to their new positions, then returning to their tanks to move them up. Tank firing positions were carefully selected to preclude ambush and minimize losses.

Once control of the front edge of the village was gained, the point moved up to help out the attacking forces. If there were barricades (such as logs or wrecked vehicles), they were shot out—not removed by hand. Minefields discovered—such as at the village entrance on the main road—were marked and initially bypassed.

Once we had control of a good part of the village, civilians inevitably started to appear. They were a great help in pointing out which houses were occupied and which weren't, and which houses were booby trapped and where minefields were located. Someone such as the mayor, a policeman, or a fireman was best at pointing out all this. What I am saying is there is a tendency on our part to ignore civilians or not to use them. By all means, use them; even if they are enemy civilians they will often talk without much pressure.

When the village was under control—but not necessarily cleared out—we got back on the move. The commander started to gather in his force, turned over the final clearing to his executive officer (XO), organized his force using the blocking force (if it was still available) as the new point, and got going. The XO, with essentially a rear guard, could finish clearing out the town (there were always hidden enemy stragglers and it took time to locate them).

In the second condition—fighting from fixed positions—the tactics were quite the same, only now it was much more deliberate, especially in the start phase. We employed heavy artillery concentrations of HE and WP and more than one artillery battalion time on target (TOT) if available. Once again, we tried to get around to the rear or flank. It was im-

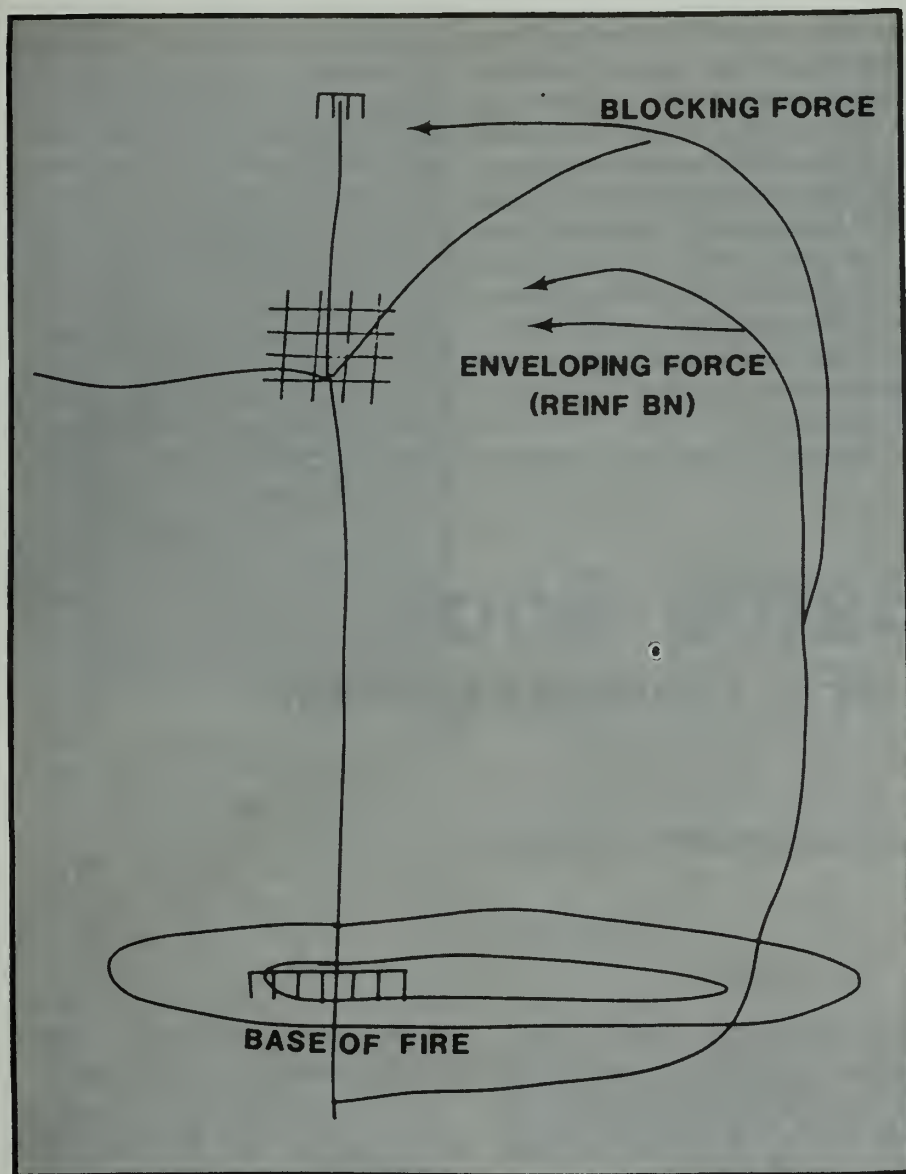


Figure 2

portant for the enveloping force to go deep, because it had a tendency to get sucked in by enemy fire into a shallow envelopment and thus another frontal attack.

I can still recall that, when I was a prisoner of the Germans, many of the new U.S. prisoner officers said they had been captured during an attack on a village. Almost without exception, their stories were that their battalion got the job of attacking a village—the battalion gave the job to a rifle company—the company attacked and gained a foothold into the village—the Germans let them into the first row of houses—cut them off—closed off reinforcements—they fought until out of ammunition and with no support, lots of dead and wounded, had to surrender. The

lesson here is that the smallest unit given the mission of taking a heavily defended village should be a reinforced battalion. Then it should attack in full force with complete fire support—never piecemeal. This requires careful planning and the deliberate use of all the available force, then rapid and violent execution.

Figure 2 shows a typical maneuver. The base of fire should be just that—tanks plus mortars. If you can talk the artillery into bringing up an advanced guard battery of SP 155s or even better, SP 8-inch howitzers, to lay down direct fire support, you have a real winner. (Our favorite for this job was the 155 SP gun.) The enemy will have some nasty surprises. For example, the Germans would try to catch our enveloping force out in

the open and pin it down with machine-gun and small arms fire right at the places where they had registered in mortar and artillery fires. The lesson in this is to move through this fire as quickly as possible—don't get pinned down, because it's the mortar and artillery fires that will cause the casualties and break up the attack. In street fighting, the Germans would sight two or more machineguns down a street. One machinegun, with all tracers, would fire high, the other machinegun, with no tracers, would fire low. Our men would try to crawl under the tracer fire to get across the street but would get hit by the lower sighted gun.

In both types of village fighting, I would be very reluctant to use the Bradleys up front. I would use the tanks up there, along with the infantry, and would use the Bradleys to cover the village high points, flanks, and rear with their guns and machineguns. I would also use the Bradleys for medical evacuation and resupply.

Don't let the tanks get into the town without close-in infantry support. The infantrymen, in addition to entering and taking houses, cover the tanks and keep the enemy from moving from place to place and attacking the tanks with grenades and antiarmor weapons. For example, in one of our actions, the Germans got several tanks into a village we occupied but without infantry support. This allowed us to move around behind the German tanks and knock them out with bazookas and our own tanks and TDs; not one of the German tanks that got into the village survived. Most of our close-in tank fighting was done with our infantry NCOs and officers, on foot, guiding tank commanders and TD commanders to firing positions. Then the latter would return to their vehicles and brief their crews, then move up into the pre-selected positions, fire, and move back to cover. The tanks were exposed as briefly as possible—they completed their fire mission and then moved to cover.

I never did any big city fighting so I cannot comment much on that. But one of the best examples is Aachen. As I recall, it was the 1st Infantry Division that took that city. The fighting there degenerated into a brawl; there was little finesse. For example, I recall that men

from the division located a streetcar barn, loaded a number of the streetcars with TNT, rolled them on their tracks down hill, and exploded them in the German positions. Excellent research material on street fighting can also be found in the many accounts of the British at Arnhem. Charles Macdonald's book *A Time for Trumpets* has several excellent and factual accounts of village fighting.

In sum, present MOUT doctrine isn't all that bad except that it seems to lead to finesse and the exclusion of some kinds of firepower such as tanks and artillery.

I am a firm believer in banging away with everything at hand, and the closer the range the better. I know that tanks can be used right up front and at the cutting edge if the proper techniques are used. In a really stubborn situation, add helicopter gunships and TAC air. Don't hesitate to use every available weapon system. I also know from experience that the more violence you throw at the enemy the better your chances of winning and winning quickly, which in turn will save casualties.

Therefore, I suggest that in our doc-

trine we try to get in more of the how to do it, which is even more important than the what to do and what not to do.

Lieutenant General William R. Desobry, United States Army Retired, commanded both the 54th and the 20th Armored Infantry Battalions in the 10th Armored Division in Europe during World War II. Following the war, his key assignments included command of a combat command in the 2nd Armored Division; service as Deputy and then Senior Advisor to the ARVN IV Corps in South Vietnam; command of the 1st Armored Division; command of the Armor Center and School; president of the XM1 tank task force; and command of the V Corps in Europe. He also served on the Department of the Army Staff and on the faculties of the Command and General Staff College and the Army War College.

A Battle Book For the BFV Platoon Leader

LIEUTENANT ROBERT L. DUNAWAY

Located in a wadi on The Shelf at the NTC is a Bradley Fighting Vehicle platoon preparing for a mission. After four days of "force on force," the platoon has been tasked to lead its company on a movement to contact through OP1 and OP2 and on to the vicinity of the Whale Gap. Pretty simple, except that the platoon leader has gone without sleep for 48 hours, his platoon has just now been reconstituted, and he has only a few hours until the line of departure (LD) time. This scene is all too familiar today, whether at the NTC, in Europe, or elsewhere.

This platoon's success can hinge on two factors—how well the unit reacts to particular situations and how well organized the platoon's planning process is. With proper battlefield planning, the first factor is merely a matter of drills and SOPs. As for the platoon's plan—because of time limitations, the platoon leader's inexperience, and simple fatigue—it often receives only lip service. It will help a lot if the platoon leader has prepared a

"battle book." Such a book clearly and concisely organizes the planning process into step by step guidelines that are easy to use, even at 2300 hours on a dark night before an 0300 LD.



What is a battle book? An SOP or an FM? Yes and no. A battle book is a working notebook that contains quick reference materials, SOPs, blank order formats, and key documents such as sector sketch formats.

But how do you, as a platoon leader, go about developing a battle book?

First, to be useable, your book must be kept simple enough so that anyone in your unit can pick it up and use it, with little training. The more "user friendly" the book is, the more likely it will become a working document, instead of a coaster for your coffee mug.

The actual size of the book depends upon what you find convenient. I prefer to use three-ring binders, as they are inexpensive and allow for pages to be added or removed. All of the paperwork is encased in standard document protectors, which serve to protect the papers and also allow me to write on them with transparency markers. For light infantry leaders, standard size sheets can be reduced for pocket-sized books, but be careful not to reduce your books too much or they will be hard to read, especially by tired eyes.

The system that has been the most successful for me is to divide the book into two binders. One binder contains

MOVE CHECKLISTS

- Road March/Movement
- Quartering Party
- Assembly Areas
- Pre-combat Checks
- Consolidation/Reorganization

DEFENSIVE OPERATIONS CHECKLISTS

- General Planning Considerations
- Hasty Defense
- Deliberate Defense
- Local Security/Patrolling
- Obstacle Kit (Squad)
- Flank Coordination

OFFENSIVE OPERATIONS CHECKLISTS

- General Planning Considerations
- Passage of Lines
- Movement to Contact/Hasty Attack
- Deliberate Attack
- Limited Visibility Attack
- Breaching Kit (Squad)

Figure 1. Reference Binder

A brief search will uncover numerous checklists that people have developed in the past. If you are a new platoon leader, though, you may find it difficult to decide which lists are the best. Try the ones that are now in use around your unit. If you can't find any, go to the manuals or other sources that discuss the desired operations and create your own checklists. None of the ones you find are going to be perfect; you will have to modify them to suit your own needs. Avoid taking pages directly from FM's, as they usually contain too much information. Instead keep the information down to one-line blurbs that jog your memory. A sample of this is included in Figure 3, which also organizes the workload between the platoon leader and the platoon sergeant.

The organization of a checklist streamlines its efficiency and can be designed many different ways—as a laundry list, in sequential or chronological order, or by responsibility or duty position. I recommend using a combination of all three techniques.

BREAKDOWN

First, take the laundry list and break it down by duty position—platoon leader, platoon sergeant, squad leader, assistant squad leader, and squad member. This breakdown ensures that the workload is distributed properly and also identifies specific duties for specific soldiers. Next, take each duty position and organize the duties chronologically within that position, and tie the sequence in with the other duty positions. For example, "Squad Leader: Make squad sector sketches *after* range cards are done." Developing the organization of a checklist takes practice, but it does improve efficiency.

Diagrams and charts are beneficial, but they can also be misleading. Make sure everyone understands that diagrams such as those used for fighting positions should not be interpreted literally, as this inhibits imagination. Use diagrams that are simple and uncluttered.

One chart that helps in briefing operations is a piece of posterboard (11"x16") covered with acetate. On this board, operations can be briefed using a freehand terrain sketch with the ap-

CONSOLIDATION—PLATOON LEADER

- Occupy Defensive Positions
- Clear Pockets of Resistance
- Position Forces and Security Elements
- Improve Defensive Positions
- Prepare for Counterattack
- Prepare for Change of Mission (Pre-combat checks)

REORGANIZATION—PLATOON SERGEANT

- Report Losses, Ammunition Expenditures, Fuel Status, and Vehicle Conditions to Team CP
- Redistribute Supplies, Equipment, Ammunition, and Personnel
- Restore Communication to all Elements
- Perform PMCS and Emergency Repairs
- See "End-of-Problem Checklist"

Figure 3. Sample Checklist

propriate graphics superimposed. This chart, or "battle board," spares you the frustration of trying to brief from a map. Another board of the same size can be used for platoon sector sketches to control the actual battle.

A final step that I took to round out my battle book was to put together a kit stocked with all the materials I would need to turn out graphics for my squad leaders. This kit consisted of a plastic file box filled with items such as water and alcohol pens, paper, pre-cut acetate sheets, and any additional references I wanted to include (such as a demolitions card and a Ranger Handbook). My driver maintained the kit; he became the "graphics man" and was responsible for making overlays for the squad leaders to have when the operations order was issued.

Look at your platoon SOP and determine whether you're using it. If you are and it works, great! If not, try the battle book idea, and you will find it will do two big things: It will help you thoroughly plan your operations in a systematic manner, and it will help you get some sleep.

ORDERS PROCESS

- Troop Leading Procedures (Leave room next to them for a time schedule that parallels the procedures.)

FRAGO

- WARNORD (These are fill-in-the-blank forms that are also used by the company commander.)

OPORD

CHANGING DOCUMENTS

- Bn/Co/Plt Codewords
- A/J Procedures
- Checkpoints/Tiers
- Sector Sketch Forms with Example
- Minefield Records
- Sensitive Items Roster
- Platoon Personnel Roster
- Equipment Status Matrix

Figure 2. Working Files

Lieutenant Robert L. Dunaway developed his battle book over a one-year period as leader of a mechanized infantry platoon and then tested it at the NTC. A 1984 graduate of the United States Military Academy, he is now aide to the assistant division commander, 1st Cavalry Division.

A Battle Book For the Company XO

CAPTAIN THOMAS D. DINACKUS

One of the most challenging transitions facing a young combat arms officer is the move from platoon leader to company executive officer (XO). Success in this new position demands both an increase in the scope of the officer's knowledge and his quick attainment of an extremely high level of proficiency. Gone are the days when he, as a platoon leader, might expect to have his mistakes overlooked as "learning experiences."

Unfortunately, there is no single Army reference work designed to make the XO's job easier; he is left with an obvious but far from ideal solution—fabricate his own battle book. If it is designed properly, it can serve equally well in field and garrison operations.

If you are a new XO, these three general guidelines should help you prepare your first battle book.

First, your battle book should include only the information that is critical for the performance of *your* mission. For example, as long as you have access to a complete copy of your unit's SOP, there is no need for your battle book to include every obscure report ever created by your higher headquarters.

Second, do not hesitate to rewrite or reorganize reference material or status charts and reports to fit your own needs. At 0200 on the third day of an ARTEP is no time to discover that the field manual's description of simplified fallout prediction is something less than self-explanatory.

Finally, your battle book should be a constantly evolving tool that becomes more finely tuned with every use and every subsequent modification.

I assembled my battle book in a

standard size three-ring notebook, which fits easily in an issue map or courier bag. Smaller formats are probably feasible, but they would be more difficult to read in low light conditions and to work with generally. Each page should be covered with acetate to protect it from the elements, preferably with the kind that accepts pencil and both water and alcohol based pens.

The book will contain several major sections:

Tactical reference data. Being second in command, you must be prepared to step forward at any time and lead your company in tactical operations. An important part of that role is issuing a company level operations order (OPORD). Foremost in the tactical portion of the book should be an OPORD outline to facilitate the quick formulation of tactical operations orders.

You should also include reference material on the capabilities of all weapon systems likely to be attached, such as the range, weapons control status, and warning system used by air defense weapons; the range, typical times of flight, and illumination capabilities of 81mm and 4.2-inch mortars and 155mm howitzers; and the capabilities, limitations, and procedures that apply to ground surveillance radars.

Finally, if your unit uses a system of markings to facilitate long-range identification of each vehicle's unit, the unit symbols should be illustrated.

Tactical SOP reports. Probably the most frequently used portion of your battle book will be the multitude of reports in the tactical SOPs of your unit and all higher headquarters. When cre-

ating this section, eliminate reports that duplicate others and those that are rarely used, and highlight the kind of information you will need regularly. This should include noting the "time due" and "as of" times for reports due at regular intervals and distinguishing these reports from those sent only in response to a particular event.

Some of the most important reports you will use are those that deal with your unit's status on Classes I, III, and V supply, vehicle maintenance (deadline), and personnel. In compiling this information, you will be coordinating with your company's subordinate elements; not only must an accurate total be submitted to your next higher echelon, but you must also keep accurate records of each sub-element's needs to ensure efficient distribution once your requests have been filled. (In your records, the units should be represented as they are task organized for tactical operations.)

It is also useful to have a record of the requests you have submitted to your S-1 and S-4, with the quantity requested and the date/time group of the request. A suggested format that meets these requirements is illustrated in Figure 1. As shown here, this chart depicts ammunition requirements for a company team equipped with the M60 tank and the M113 series of vehicles. The 1st and 2d Platoons are mechanized infantry; the 3d Platoon is an attached tank element. (Only selected entries are shown.)

Using this format, you would enter the line item code used in your unit in the "Item Identifier" column, enter the current amount of supplies needed by each subordinate unit in the appropriate

Item Identifier	Description	1st Plt	2d Plt	3d Plt	AT Sec	Mortars	Cmd GP	Maint	Total	First Request	Second Request	Third Request	Remarks
AA	105mm APDS			20					20	120800 20			
AB	105mm HEAT			30					30	120800 30			
B	M2 .50 Cal	1,200	1,500			200	200	100	3200	110900 2000	120800 3200		
C	M85 .50 Cal			1,500					1500	100800 400	110900 900	120800 1500	Shortage
D	7.62mm	1,000	1,500	1,000	400				3900	120800 3900			
E	5.56mm	2,000	2,200			100		100	4220	120800 4220			

Figure 1. Sample Logistics Status (LOGSTAT) Report (Ammunition Shown)

column, and use the blank columns for attached units. You would enter the company's total requirement in the "total" column and enter the amount requested and date/time group for the last three unfilled requests.

From these entries it is easy to see that requests for 105mm APDS, 105mm HEAT, 7.62mm, and 5.56mm rounds are being promptly filled; only the most recent request, at 120800, remains open. The M2 .50 caliber ammunition has not been delivered as promptly, however—the last two requests, sent in at 110900 and 120800, have yet to be received. Finally, M85 .50 caliber ammunition is in short supply. The last three requests, for ever-increasing amounts, have yet to be filled, and the S-4 has indicated a shortage.

Submitting these logistics status reports will be easier and faster if you have handy a comprehensive body of reference data. The battle book should contain the fuel and ammunition basic loads and the authorized personnel levels (by MOS and skill level), for all subordinate elements and units likely to be attached. This information will enable you to submit realistic and timely requests even without accurate reports from subordinate unit leaders.

Maintenance. Your maintenance mission will also be simplified and improved, both in the field and in garrison, by a useful body of maintenance related information. Figure 2 illustrates a suggested format with selected entries. The data on this chart falls into three categories: Information identifying the type of vehicle or component in the second column (to facilitate maintenance proce-

dures); information identifying the serial number of a vehicle or component in the third column (to facilitate supply accountability); and information indicating when maintenance must next be performed in the fourth column. These charts should include the serial number of each piece of equipment that is likely to require turn-in for repair or calibration.

In addition, any differences in vehicles that could affect maintenance should be noted, such as which unit APCs are M113A1s and which are M113A2s.

A comprehensive list of maintenance information would include the following for all vehicles:

- Vehicle registration number.
- Vehicle U.S.A. number.
- Date of last Q-service.
- Date of last PMCS, DA Form 2404.
- Date portable fire extinguisher was last weighed and inspected.

For all M113 series vehicles, the list would include:

- Serial numbers of driver's M19 IR periscope, all TOW components (for M220A1 and M901 ITVs), and gun tubes (for M106 and M125 series mortar carriers).
- Date fixed fire extinguisher was last weighed and inspected.
- Date of last borescope/pullover (for M106 and M125 series mortar carriers).
- Date of last verification (for TOW and Dragon systems).

- Date of generator's last service (for M577 series TOC).

For all M60A1 tanks, it would include:

- Serial numbers of track commander's M36 IR sight; gunner's M32 IR sight; driver's IR sight, searchlight and all components, radio (if permanently assigned to vehicle), gun tube, and breech ring.
- Date of last borescope/pullover/recoil exercise.
- Number of EFC (equivalent full charge) rounds left on gun tube.
- Searchlight type.
- Engine type.
- Active versus passive IR.
- Date fixed fire extinguishers were last weighed and inspected.

For M578A1 or M88A1 recovery vehicles:

- Date fixed fire extinguishers were last weighed and inspected.
- Date boom/sling was last calibrated.

You will need to modify this list, of course, to include your unit's equipment.

Finally, a vehicle status chart will prove indispensable to field maintenance. Enough room should be left on the chart to record for each vehicle its location by six-digit grid, its specific maintenance problem, the time the vehicle is due up, and any other pertinent information. The chart should include all assigned vehicles with extra room for vehicles from attached units.

Bumper Number	Vehicle Type	Driver's IR Periscope Serial #	Last Q-Svc Performed
B 11	M113A1	XXXXXX	XX XXX XX
B 12	M113A2	XXXXXX	XX XXX XX

Figure 2. Maintenance Data Chart

NBC Operations. While an executive officer rarely serves as the unit NBC defense officer, logic dictates that you will supervise many of the unit's NBC defense operations, including fallout prediction, radiological calculations, nuclear and chemical strike warnings, and decontamination operations. Because this information is critical to the unit's tactical performance (and difficult to memorize), a major portion of your battle book should be devoted to NBC reference data and status charts. Unfortunately, there is no single comprehensive source of NBC information, and you will have to consult a number of publications. Your book might include the following:

- NBC Task Organization Chart (showing what type of NBC equipment is carried on each vehicle).
- Radiation Exposure Status Chart. (See FM 17-95, *Calvary—Draft—December 1981*.)
- Chemical Contamination Status Chart.
- Notes on simplified and detailed fallout prediction. (See FM 3-22, *Fallout Prediction*, October 1973.)
- Data on nuclear weapons effects. (See FM 101-31-1, *Staff Officer's Field Manual: Nuclear Weapons Employment Doctrine and Procedures*, March 1977, and RB 100-34, *Operations on the Integrated Battlefield*, U.S. Army Armor School, 1981.)
- Data on nuclear radiation transmis-

sion factors for various vehicles and shelters (RB 100-34).

- Notes on conducting radiological surveys (route, pre-selected dose rate, and point techniques) and preparing the appropriate reports.
 - Notes on preparing NBC 1 through 4 reports.
 - Format and procedures for unit strike warnings.
 - Data on MOPP levels (FM 17-95).
 - Data on chemical weapon effects (RB 100-34).
 - Data on duration of persistent chemical contamination and downwind chemical hazard (RB 100-34).
 - Notes on conducting personnel and vehicular decontamination. (See FM 3-87, *NBC Reconnaissance and Decontamination Operations*, February 1980.)
- Finally, your battle book can also be used as a repository for various other useful documents, and you should create status charts or reference material that will help manage any areas of special "command interest" in your unit. These miscellaneous materials might include the following:
- Load plans for headquarters platoon vehicles.
 - Current battle roster.
 - Prescribed load list with current Zero Balance Report.
 - Julian calendar.
 - Extra signature cards for Self Service Supply Center and Class IX pickup.

• Dry cell battery status chart showing requisition dates, quantity ordered, and current status.

• Communications equipment deadline chart (showing deficiency, date turned in, and current status).

• Searchlight deadline chart (showing deficiency, date turned in, and current status).

You will find that constructing a good battle book is a time-consuming task, but rest assured that the resulting efficiency will be well worth the effort, especially since much of the work can be done during time that otherwise might be wasted, such as downtime during gunnery.

Once you have experimented with the book and have arrived at a format that meets your needs, try providing a copy for your unit TOC, and see if operational and logistical reporting does not improve significantly.

As a combat arms executive officer, you occupy a unique position of great responsibility and broad scope. A well-designed battle book will help you perform this critical mission and will also help ensure that your unit is able to fight effectively on the modern battlefield.

Captain Thomas D. Dinackus has served as a troop platoon leader, squadron S-3 air, and troop executive officer with the 2d Squadron, 3d Armored Cavalry Regiment at Fort Bliss. He is currently a member of the Individual Ready Reserve and an attorney in Washington, D.C.

The Battalion Adjutant A Perspective for the Commander

CAPTAIN ANTHONY J. TATA

A battalion commander, in choosing his primary staff, usually gives considerable thought to filling the S-3 position. For the S-1 and S-4 slots, however, he may accept officers who are waiting for company commands or buying time for

other reasons, without seriously considering their qualifications.

A prudent commander, however, will select his adjutant and logistician with the same care he exercises when choosing a battalion operations officer. In particular,

one of his most important decisions is his selection of a battalion adjutant.

Because of the close relationship between the commander and his S-1, every commander should weigh a potential adjutant by three criteria—his abilities,

his longevity in the unit, and his goals. The ideal candidate for the position is an officer who has superior communication and management skills, who will remain on the job for at least 12 to 18 months, and who has a genuine desire to be the S-1. The adjutant who knows he will be in the job for at least a year (and preferably longer) can lend continuity to the traditionally turbulent battalion staff.

An S-1 with a good command of the English language can dramatically reduce the commander's administrative load; he should also be an effective speaker because, if he is doing his job, no one in the battalion has more contact with high-ranking officers, other units, and public agencies. Frequently, the image a battalion staff officer projects will determine the battalion's reputation within the division; an articulate S-1, therefore, can promote good will among other units and supporting agencies.

A carefully selected S-1 who works closely with the same commander over a period of time will understand the commander's guidance or intent without always being told, and can convey that intent to the other primary and special staff members. This will reduce the traffic in and out of the commander's office and prevent duplication of effort. Further, the trust that develops between an S-1 and a battalion commander is not easy to replace.

Most important, an S-1 with longevity will be more likely to take a special interest in the Personnel Administration Center (PAC), and in many respects the success or failure of the PAC will be the barometer of the adjutant's performance. If an officer is to be an S-1 for only six months, for example, he probably will be overwhelmed with his staff work and may ignore the PAC, feeling that he cannot be blamed for any problems that may result during that time. A stabilized S-1, however, will know that the PAC is his responsibility and will make the time to manage it properly and take steps to ensure its success. And a successful, responsive PAC will pay dividends in better troop morale and welfare.

As for the third criterion, an officer who has a genuine desire to be the S-1 stands a far better chance of succeeding at the job. The adjutant, after all, is

responsible for numerous soldier and family care programs, and he can expect to occasionally take a verbal beating from the battalion and company commanders.

Since the PAC becomes responsible for soldier and family problems that cannot be handled at company level, the battalion commander will want his S-1 to manage these special cases carefully, especially those involving family members. If the adjutant does not show a genuine concern for those cases, many soldiers and families may become disillusioned with the Army.

Along with a desire for the job, an S-1 must also have the poise and composure to handle the assorted demands of the battalion and company commanders.

Once the battalion commander has selected his adjutant, he should make it clear what he wants the adjutant to do.

Even the best staff officer cannot operate to his full potential if he does not know his commander's intent. The commander can focus his adjutant's attention on his own priorities—areas such as personnel management, soldier morale, and command administration.

One of the adjutant's usual tasks is to monitor personnel matters. Although the management of enlisted personnel is the responsibility of the command sergeant major and the PAC NCO, the S-1 still must keep abreast of the unit's NCO manning and strength.

Officer management is solely his responsibility. As part of this responsibility, he should develop management tools to help the battalion commander make officer placement decisions.

First, the S-1 should develop local preference statements for each officer



to complete, indicating schooling completed, previous assignments, longevity, and three job preferences for his next position. The S-1 can then compile these and transfer the data to a master spreadsheet that makes the information readily available. The S-1, using another spreadsheet, then graphically depicts each officer, his duty position, time in that position, expected promotion window, and date of rotation from the unit. From this data, the adjutant can make sound officer management recommendations to the battalion commander and can react quickly to short suspense taskings from brigade or division.

Using a similar system, the battalion commander can anticipate and predict officer changes and identify potential officer manning problems well in advance.

Perhaps the single greatest effect an adjutant can have on the soldiers of a battalion result from his management of those programs dealing with morale and with legal matters. The S-1 must implement efficient systems for dealing with soldier pay problems, family issues, awards, and legal actions. An adjutant who genuinely cares about the soldiers and their families will make sure the battalion chain of concern and family support programs are responsive to the needs of all the families. He should pay particular attention to any unresolved

problems. The caring adjutant will fight for the soldiers and families of his battalion. Further, an S-1 can never underestimate the positive effect of the rapid and just processing of awards and legal actions.

Another important role for an S-1 is managing his commander's administrative tasks. Many officers have problems trying to manage part of another person's workload. Likewise, many commanders are equally uncomfortable dividing administrative responsibilities between themselves and their adjutants. In the absence of guidance, an S-1 must take the initiative and do as much as possible.

The adjutant will be deluged with paperwork that comes in through daily distribution, and he must be able to distinguish the important from the trivial. As distribution arrives in his in-box, he should immediately wade through it, first scanning the material for commander-to-commander messages and placing these in the center of the battalion commander's desk. He should then determine the items the commander needs to sign or review that day and place them in a "HOT" file folder in the commander's in-box. Finally, he should collect the information that is not as critical and place it in a reading file in the commander's secondary box. He should do the same when each new distribution arrives.

If he has time, the adjutant should research what he can and attach written information and recommendations to the basic correspondence. His commander only has to miss one suspense date for the S-1 to understand the true importance of helping his commander in administrative management. Although the adjutant is not the commander's secretary, he is a staff officer with specific duties and loyalties in the area of command administration.

A battalion adjutant cannot neglect his many other responsibilities, such as strength accounting, casualty reporting, and his staff relationship with the battalion executive officer. But neither can he ignore his duties of command administration, soldier caring, and personnel management.

The commander who uses extra care in selecting his S-1 will thus free himself to concentrate on other matters and can proceed with the comforting knowledge that his adjutant is representing his battalion well and is taking care of his soldiers.

Captain Anthony J. Tata served as adjutant of a light infantry battalion, in which he also served as a rifle platoon leader and a company executive officer. A 1981 graduate of the United States Military Academy, he is now assigned to 1st Battalion, 8th Infantry, 4th Infantry Division.

Forgotten Heritage

CAPTAIN ROBIN M. CATHCART

Companies from Pennsylvania, Maryland, and Virginia formed the Continental Army on 14 June 1775. The Third Infantry Regiment, "The Old Guard," joined the Regular Army on 3 June 1784.

We are justifiably proud of the achievements of these distinguished

Army units. But all too often we forget that some units of the Army National Guard pre-date the formation of these units by more than 100 years, and that these National Guard units also frequently pre-dated the creation of their respective territories or states.

Although militia units had been formed

earlier in Virginia, the creation of three regiments from existing companies by the Massachusetts Bay Colony on 13 December 1636 is officially recognized as the beginning of the modern Army National Guard. These units were the North, South, and East Regiments. The North Regiment, later renamed the Middlesex



Bunker Hill, 17 June 1775—one of the Revolutionary War battles in which both the 181st and the 182d Infantry Regiments fought.

Regiment, was formed from companies already in existence in Charlestown, New Town, Cambridge, Watertown, Concord and, later, Dedham. This was the beginning of the two oldest infantry regiments in the country, the 181st and 182d Infantry Regiments, Massachusetts Army National Guard.

The term “National Guard” was first adopted by the 2d Battalion, 11th New York Artillery, in honor of the Marquis de Lafayette’s celebrated *Garde Nationale de Paris* on the occasion of Lafayette’s final passage through New York City enroute to France on 24 August 1824. It later became the official title of the American militia after the passage of the National Defense Act of 1916.

The 181st and 182d Infantry Regiments served throughout the American Revolution. The 181st participated in the Battles of Lexington, Bunker Hill, Trenton, Princeton, Saratoga, and Monmouth; the 182d fought at Lexington, Bunker Hill, Quebec, and Saratoga. In the war of 1812, both regiments were mobilized (in 1814) as elements of the Elite Brigade, Massachusetts Militia.

During the Civil War, the 181st Infantry was the first regiment to reach Washington, D.C., after the call-up in April 1861. It helped form the 26th Massachusetts Volunteer Infantry Regiment, which saw service for nearly the entire war and fought at Petersburg, in the Shenandoah Valley, and at Vicksburg. The 182d, then known as the Fifth Massachusetts Volunteer Infantry Regiment, fought at Bull Run and in the North Carolina campaigns of 1862-1863.

During the Spanish-American War, the 181st and 182d Infantry Regiments were on Federal service for nine months and served in Puerto Rico.

When the United States entered World War I, these two regiments again entered Federal service and were redesignated pioneer infantry regiments, which were corps- or army-level combat engineer units. They took part in the St. Mihiel, Meuse-Argonne, and Lorraine campaigns. After the war, the 181st and 182d Infantry Regiments were assigned to the 26th Infantry Division.

The 181st served during World War II in the Northern France, Rhineland, Ardennes-Alsace, and Central Europe

campaigns. The 182d Infantry served in the Pacific as part of the Americal Division. Its campaign credits include Guadalcanal, the Northern Solomons, Leyte, and the Southern Philippines. It was awarded the Navy Presidential Unit Citation for Guadalcanal and the Philippine Presidential Unit Citation.

Both regiments exist today as the 1st and 2d Battalions, 181st Infantry and the 1st Battalion, 182d Infantry, both assigned to the 26th “Yankee” Infantry Division, Massachusetts Army National Guard. In their state role they serve civil authorities in the preservation of life, the protection of property, and the maintenance of order. In their Federal role, the 181st and 182d, along with the rest of the Army National Guard, continue their primary mission of serving as an integral part of the United States’ first line of defense.

Captain Robin M. Cathcart, an Armor officer in the Mississippi Army National Guard, was on temporary duty with the Army National Guard Bureau’s Office of Public Affairs when he wrote this article. He holds a master’s degree from Syracuse University.

MOVING TARGET

MARKSMANSHIP TRAINING

JOEL D. SCHENDEL

Traditionally, rifle marksmanship training has emphasized the engagement of stationary targets from defensive positions. Yet, moving targets are the type most frequently encountered on the battlefield.

Few would argue that there is no need for moving target marksmanship training. Moving targets are easier to detect than stationary targets but can be much harder to hit, depending on the conditions under which they appear. However, this training also would create additional demands on training resources when these resources already are tightly constrained.

What do we know about shooting moving targets? Can this skill be trained in a reasonable period of time and at a reasonable cost?

Concerns over moving target marksmanship training came to the forefront during the mid-1970s when the Army decided to pursue the Remoted Target System (RETS) concept for ranges. The idea was to provide realistic, threat-oriented marksmanship training for all soldiers, with moving target training being included as part of the Basic Rifle Marksmanship (BRM) program of instruction (POI). Following a series of tests, however, it was concluded that moving target engagement is an advanced skill, one that should be taught, but probably not to all soldiers. In 1982, moving target training was included as part of the Advanced Rifle Marksmanship (ARM) POI, and it remains an important part of training for soldiers with the military occupational specialties (MOSs) of 11B (Infantryman) and 11M (Fighting Vehicle Infantryman).

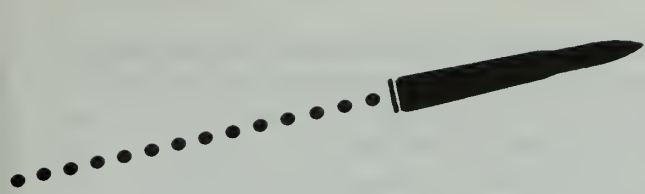
The Fort Benning Field Unit of the Army Research Institute (ARI), working with the U.S. Army Infantry School (USAIS), also began research on marksmanship training in the mid-1970s, and this research has been used to help establish the current BRM and ARM POIs. More recently, it was used to support the preparation of Field Circular (FC) 23-11, Unit Rifle Marksmanship Training Guide.

A portion of the research effort has been aimed at developing effective, low-cost ways of training soldiers to shoot at moving targets. This article summarizes many of the issues and concerns that surfaced during our research on moving target training and describes what we did to help address them. It also includes a number of recommendations for improving training in this area. (The views expressed are my own.)

When we began our research, it became evident that the Army's existing doctrine on moving target engagement did not relate directly to combat firing. Most of the literature we reviewed had been developed to help competitive shooters hit running targets. Nevertheless, this literature, coupled with numerous trips to the field and discussions with subject matter experts, led us to conclude that the same four fundamentals of rifle marksmanship that apply to stationary targets—steady position, correct aiming, smooth trigger squeeze, and controlled breathing—also apply to moving targets. If anything, these fundamentals are even more important for the engagement of moving targets, because there is an inherent instability in shooting at moving targets and because these targets frequently are exposed only for brief periods of time.

Steady position. The results of tests conducted by ARI and the U.S. Army Combat Developments Experimentation Command (CDEC) indicate that a good firing position is a key factor in hitting moving targets. The position must provide for balance and as much support as possible without being too rigid. Too much support inhibits flexibility and makes it virtually impossible for a firer to engage moving targets without shifting about.

As noted in FC 23-11, targets that have no lateral movement—targets moving directly toward or away from the firer—can be treated in the same manner as stationary targets. These targets are engaged most effectively from a fully supported position. At the other extreme, targets that have signifi-



cant lateral movement—targets moving rapidly, close up, and at right angles to the firer—are easiest to engage if the rifle and the entire upper body are free to swing with the target.

In general, when moving targets are likely to appear, it is probably best to start from a partially supported position (Figure 1). The non-firing hand is placed on a sandbag support and used as a pivot point for the rifle. The rest of the upper body is held free from external support. This position affords both stability and freedom of movement, and it can be modified quickly if more or less support is needed.

In one experiment, we focused on two frequently used methods of engaging moving targets—tracking and trapping. Our goal was to determine the conditions under which one or the other method would prove superior. Tracking involves moving the muzzle of the rifle at a rate that matches the rate of the target. The firer then tries to shoot the moment the target is in proper relation to the sights, continuing the movement of the rifle until after the shot is away. Trapping involves holding the muzzle slightly in front of the target and firing the moment the target passes through the aiming point.

In the experiment, we found that shooters generally perform better trapping against slow-moving distant targets and tracking against fast-moving close-up targets. We also discovered

that low-ability shooters prefer to trap targets and perform better trapping. Trapping is easier than tracking for these shooters because it entails little muzzle movement and can be accomplished with external body and weapon supports.

In contrast, our data showed that high-ability shooters prefer to track targets and that they hit more targets while tracking. The greater freedom of movement that tracking affords comes at the expense of added control, but it extends the time that is available to engage a target. These results suggest that soldiers should be introduced to both methods and allowed to try both. High-ability shooters are likely to be biased initially toward tracking, while low-ability shooters are likely to be biased toward trapping, biases that should result in superior performance for both groups.

To help soldiers improve their tracking and trapping skills, we worked with the Fort Benning Training Support Center to develop the Dry Fire Moving Target Engagement Trainer—DRY MOVER— (Figure 2). This inexpensive device consists of two scaled, three-dimensional targets, each situated in front of a curved shield and mounted at the end of a rod. The rod is seated on a rotating shaft that is driven by a variable speed, reversible, AC motor, which is mounted in an aluminum housing.

DRY MOVER can be configured to simulate the apparent size, speed, and exposure time of the 75-meter or 125-meter RETS moving targets. Fifteen to 30 soldiers are then arranged in a semi-circle (or circle) around the device during dry fire training. Depending on the rod's direction of rotation, these soldiers see the targets as moving from right to left (clockwise) or left to right (counterclockwise). While the device does not give the shooters any feedback on the location of their shots, with a knowledgeable instructor, it can help teach them how to fire from a partially supported position as well as how to track and trap targets.

Point of aim. Previous instruction on point of aim was overly complex. At least four different lead rules were recommended for targets moving at different speeds, angles, and ranges, making it difficult to remember the rules, much less attempt to apply them under stress. The rules also appear to have been developed on the assumption that most targets will be moving at 90 degrees relative to the direction of fire. Of course, combat targets can be expected to move at any angle, with those moving at 90 degrees being among the least threatening.

To overcome these concerns, we developed and tested a

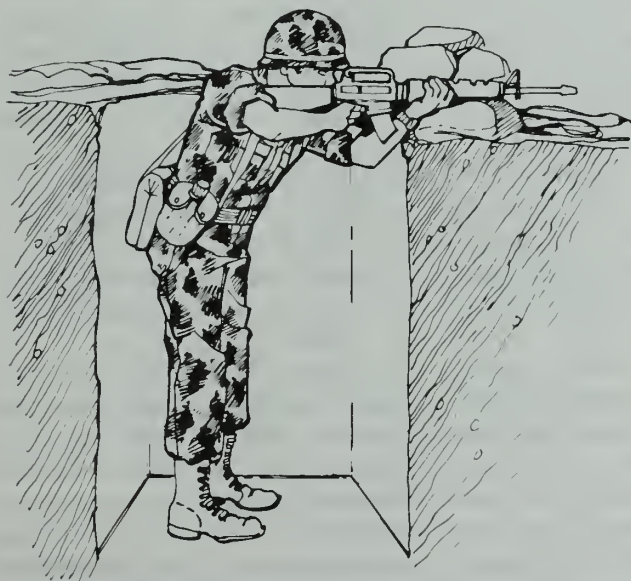


Figure 1. Partially supported firing position.

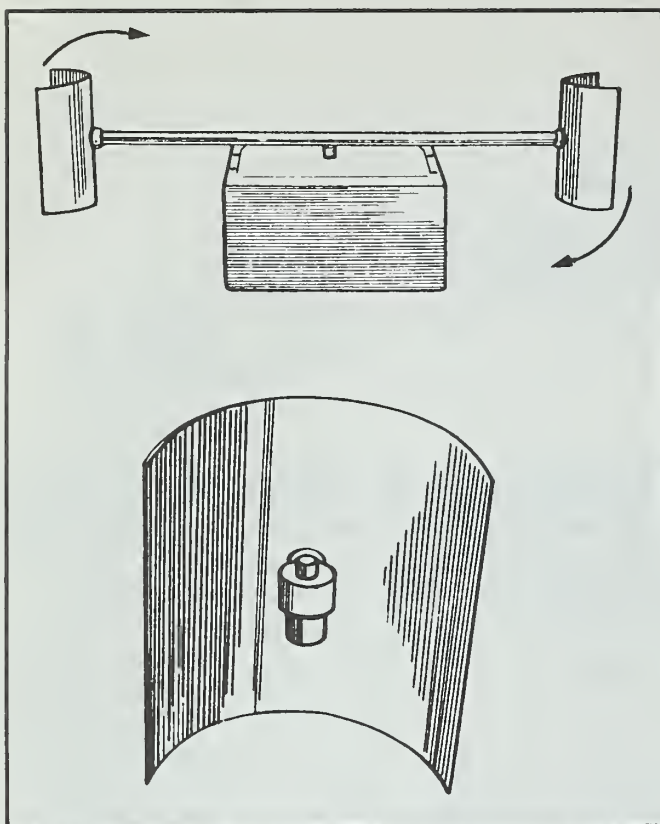


Figure 2. Dry Fire Moving Target Engagement Trainer (DRY MOVER).

single lead rule. The rule merely involves placing the trailing corner of the front sight post at the center of mass of the target (Figure 3). This causes the amount of lead to increase automatically as the range to the target increases. As illustrated in FC 23-11, the front sight post of an M16A1 rifle covers about 1.6 inches of the target at 15 meters or about 16 inches of the target at 150 meters. Since the center of the front sight post is the actual aiming point, placing the trailing corner of the front sight post on the center of mass of the target provides for a lead of about .8 inch at 15 meters, or about 8 inches at 150 meters. This single lead rule provides for hits against targets moving at a variety of speeds, angles, and ranges, and it is particularly effective against high-priority, close-in targets (targets inside 100 meters).

In the initial aiming process, speed is very important to the effective engagement of moving targets. In fact, some experts regard it as the main problem, because the more time the firer takes to react to a moving target, the less time he has to achieve a good sight picture. The single lead rule was developed to simplify and speed initial aiming. Two training aids also were developed to facilitate this process—the Aid to Improved Marksmanship (AIM) and the 25-Meter Scaled Simulated Moving Target.

AIM, like DRY MOVER, has been used for several years as part of the ARM POI. It is a self-paced, performance-based workbook designed to teach the effects of gravity and target motion on point of aim. Each AIM exercise includes two identical photographs of a scaled walking or running target seen at a range of 75, 125, or 185 meters. One of the photos appears on the left side of a page; the other photo is under a paper flap on the right side of the page.

Each exercise uses a transparent overlay to show where a shot would hit given a particular point of aim. The M16A1 sights are shown in proper alignment on the left side of the overlay; a dot appears on the right side. The soldier is told to place the sights (left side of the overlay) over the target on the left side of the page, allowing enough lead to hit the target, considering its rate and angle of movement and range. The dot on the right side of the overlay is placed under the paper flap on the right side of the page. Once the soldier has what he believes is a correct sight picture, he need only lift the paper flap to reveal his shot location (the dot).

Care was taken in the preparation of AIM to provide as much realism as possible. The M16A1 sights on the overlay were made by taking a photograph through the actual rifle sights. Additionally, the dot on the overlay was scaled to correspond in size to the four-centimeter zero circle on the 25-meter zero target. (The dot on the overlay is much smaller than four centimeters, of course, but it is scaled to appear the correct size in relation to the reduced-scale targets.) Care also was taken to ensure that the dot accurately reflected the location of each shot, given particular points of aim. This was done using trajectory and target movement data that had been confirmed through actual firings.

One person who used AIM reported that it helped him “gauge his eyeball” for M16A1 lead requirements, and the results of our testing generally agreed with this observation. Soldiers who received AIM training developed substantially more knowledge about how to lead various targets than soldiers who were given the same information about lead through lecture and demonstration.

The other training aid, the 25-meter scaled simulated moving target, has three enemy soldier silhouettes printed on it. Each silhouette appears to be moving at a different speed, angle, and range (Figure 4). A dotted silhouette, not visible from 25 meters, is offset to the front of each solid silhouette. During training, soldiers are instructed to engage each solid silhouette as if it were moving. Firers are placed under time pressure, not knowing until the last instant which silhouette—top, center, or bottom—is to be engaged on any particular trial. A tower operator controls the sequence in which silhouettes are engaged, while a spotter seated next to each firer uses a telescope or binoculars to provide feedback on shot locations. The only shots scored as hits are those within the dotted silhouettes.

Although the 25-meter scaled simulated moving target is not currently being used in ARM, it can be used in conjunction with the DRY MOVER to provide relatively low-cost moving target training. Other scaled targets also can be substituted for the simulated moving target (as discussed in FC 23-11) to support moving target training.

Trigger squeeze. As suggested in FC 23-11, the speed required to engage moving targets frequently causes a soldier to use a rapid, controlled trigger action that is more like a jerk than a squeeze. Of course, jerking the trigger can cause targets to be missed. Fortunately, though, the disruptive effects of jerking the trigger can be largely offset by placing heavy initial pressure on the trigger. In fact, our observations suggest that heavy initial pressure (about half the pressure required to fire the weapon) can reduce trigger jerk to such an

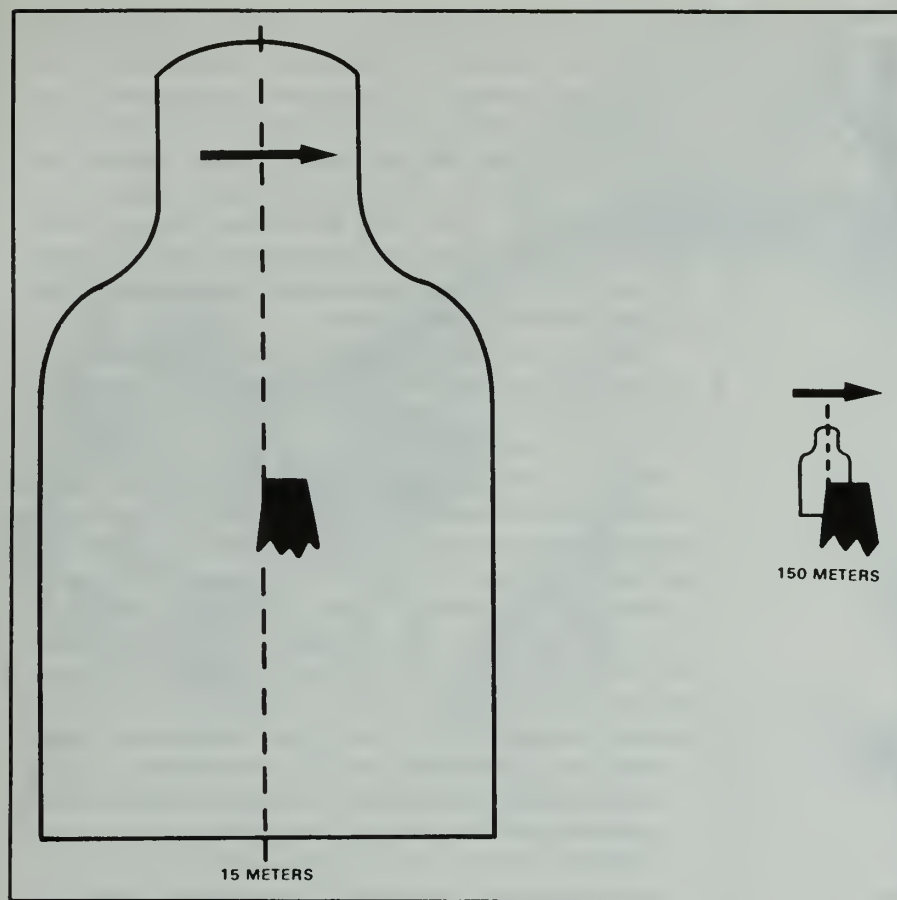


Figure 3. Single sight rule applied against scaled 15-meter and 150-meter moving targets. Arrows indicate direction of movement.

extent that it is difficult to detect any effect on the outcome of the shot. (Our observations were made on Weaponeer, a marksmanship training device that provides a video replay of the shooter's aiming point during the firing process.)

Breath control. To avoid disturbing the lay of his weapon, the firer must stop breathing while he makes a shot. For moving targets and briefly exposed stationary targets, this means he must be prepared to halt his breathing at any point during the breathing cycle, not necessarily at the moment of natural respiratory pause. The need to react quickly to the appearance of a moving target cannot be overemphasized, and breath control is essential to this process.

Faulty breath control is not easy to diagnose as a shooting problem. Like most other shooting problems, it cannot be diagnosed strictly through shot group analysis, and it is largely indistinguishable from general unsteadiness when a simulator such as Weaponeer is being used. Breathing can cause shots to be missed to the left and right as well as above and below the target; in diagnosing this shooting problem, there really is no good substitute for having a trained instructor watch a shooter during the firing process.

I am convinced that soldiers can be trained to hit moving targets in a reasonable period of time and at a reasonable cost. Working in cooperation with the Infantry School, ARI recently conducted a series of experiments examining the relative effectiveness of one- and two-day moving target POIs with and without special training devices. In addition to AIM and DRY MOVER, these devices included a Superdart Location of Miss and Hit (LOMAH) system, Weaponeer II, and the Multipurpose Arcade Combat Simulator (MACS).

LOMAH technology combines the benefits of the known distance approach to marksmanship training (precise feedback on bullet location, for example) with the benefits of pop-up targetry (target detection and realism).

LOMAH systems depend on an array of detectors that sense the sonic energy generated by a supersonic projectile passing over them. The readings from the sensors then are used to calculate the exact location of the projectile in relation to the target. This location information is instantaneously fed back to the firer by way of a video screen. (More detailed information on this system appears in "Troubleshooting Rifle Marksmanship," by Seward Smith and Art Osborne, *INFANTRY*, July-August 1981, pages 28-34.)

Weaponeer II is a marksmanship training device that simulates the live-fire conditions of the M16A1 rifle and closely resembles the original Weaponeer. (See "The Weaponeer and Marksmanship," Joel D. Schendel, *INFANTRY*, January-February 1985, pages 32-35.) Like Weaponeer, Weaponeer II includes an instructor video display showing the target, the rifle's aiming point just prior to firing, and the point of simulated bullet impact. Unlike Weaponeer, the newer device includes both stationary and moving targets.

MACS was developed (and patented) by ARI in response to a need for an inexpensive, part-task weapons trainer (Figure 5). It currently consists of an optically-enhanced light pen mounted on a demilitarized weapon, a color monitor, a Commodore 64 microcomputer, and cartridge-based software. MACS was designed so that the same general hardware could be used to support dry fire training with a variety of weapon systems, including the M16A1 rifle, M203 grenade launcher,



Figure 4. 25-meter scaled simulated moving targets.

M72A2 light antiarmor weapon, and Mark 19 40mm machinegun. The light pen is simply moved from one weapon system to another and a different cartridge is inserted in the microcomputer. (MACS targets are computer-generated images.) Most of the existing MACS software was designed to support basic, advanced, and unit rifle marksmanship training and includes programs for moving target training.

Both one-day and two-day POIs proved effective in promoting soldiers' moving target marksmanship skills. The best results were obtained for soldiers who were given a two-day POI that included the use of the single-lead rule, AIM, MACS, Weaponeer II, and LOMAH. The average soldier, after completing this POI, showed a 27 percent increase in moving target hits.

The experimental POIs were compared against the current eight-hour ARM moving target POI. Although the current POI includes many good ideas for training (such as AIM and DRY MOVER), it is not as effective as the experimental POIs. The average soldier who completed the current POI showed only a nine percent increase in moving target hits.

Neither is this POI as efficient as the experimental POIs. According to our estimates, it costs about \$24.30 for a soldier

to complete the POI. This figure includes the costs associated with range operation and maintenance, transportation, ammunition, and salaries. In contrast, it would cost about \$35.90 per soldier to complete the experimental two-day POI. This figure includes not only these same costs but also the costs of 10 MACS systems, 10 Weaponeer II systems, and a 10-lane LOMAH system. Thus, while the two-day POI costs about 50 percent more to conduct than the current eight-hour ARM moving target POI, this increased cost translates into a 300 percent increase in performance.

Many advances have been made in moving target marksmanship training, and further advances are waiting to be made. The following are some steps that may need to be considered further.

Place greater emphasis on the engagement of high-priority moving targets. The results of some of our early experiments indicate that rifle fire may be relatively ineffective against targets beyond 100 meters that have significant lateral movement. For example, in one experiment, 91 initial entry soldiers from Fort Benning, Georgia, who had just qualified with the M16A1 rifle and who had been given information on lead, fired an intensive RETS scenario that included 44 stationary targets and 22 moving targets. The stationary targets appeared at ranges between 25 and 300 meters, the moving targets at ranges between 15 and 185 meters. All of the moving targets moved at 45 degrees relative to the firer at four (185 meters only) or eight meters per second. Overall, these soldiers averaged 27 percent hits against moving targets and 37 percent hits against stationary targets. Hits against moving targets equalled 28 percent at 75 meters, 23 percent at 125 meters, and 15 percent at 185 meters.

Even when seven shooters from the Running Target Branch, U.S. Army Marksmanship Unit (AMU), fired this scenario twice (the first time for practice), the number of hits against moving targets fell off rapidly at ranges beyond 35 meters. Only half the moving targets presented at 75 meters were hit, and this number decreased to 39 percent at 125 meters and 32 percent at 185 meters.

Emphasizing the engagement of targets inside 100 meters, moving at reduced speeds (two to six meters per second) or reduced angles (0 to 45 degrees), would serve at least three purposes: First, the soldiers would become accustomed to hitting high-priority moving targets (those that posed a significant threat) instead of targets moving at greater distances, speeds, or angles (45 to 90 degrees) (Figure 6). Reducing the targets' speed or angle of movement (lateral velocity) also would provide a better balance between high performance demands and low training resources. In effect, moving target engagement would become less of an "advanced" skill. Of course, nothing would prevent imposing increased demands on firers when time and resources allowed. Finally, having targets move at different speeds and angles would lend greater variety to training and give the soldiers more experience in engaging different types of moving targets.

Emphasizing the engagement of high-priority moving targets may serve an additional purpose as well. It may help sort out the relative importance of training soldiers to hit long-range stationary targets. With the fielding of the M16A2 rifle, more consideration has been given to the need for training soldiers

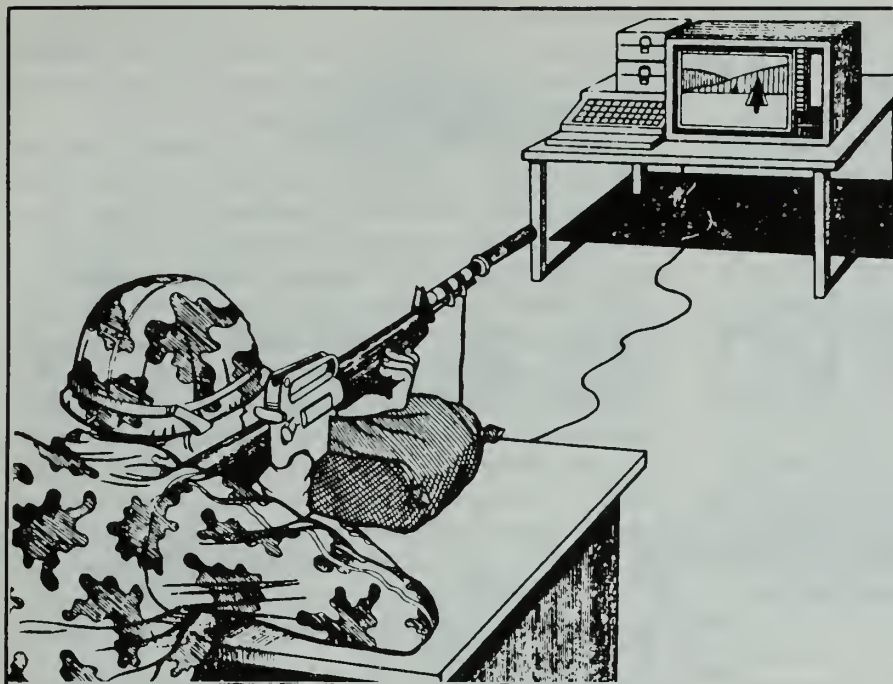


Figure 5. Multipurpose Arcade Combat Simulator (MACS) configured as an M16A1 rifle marksmanship trainer.

to hit targets at ranges greater than 300 meters. There are many practical constraints that would interfere with attempts to provide this training, not the least of which is the lack of suitable range facilities. More important, however, is deciding whether this training deserves priority over certain other types of marksmanship training, including the engagement of high-priority moving targets. Some feel it does not.

Place greater emphasis on the rapid acquisition of stationary targets. It is probably safe to assume that it costs more to conduct moving target training than to conduct stationary target training. Certainly there is no comparison between the cost of RETS moving target systems and the current stationary target systems. Given this assumption, there may be a great deal to be gained by having soldiers fire against stationary targets in preparation for shooting at moving targets.

We conducted one experiment to test the hypothesis that extending stationary target training results in better performance against moving targets. Although the data was clearly consistent with this notion, it did not lend particularly compelling support. I suspect we would have had greater success if, instead of merely having our test soldiers practice shooting at stationary targets, we had emphasized the rapid acquisition of these targets. All of our research supports the necessity for rapidly acquiring moving targets because of their limited exposure times.

Giving additional consideration to a somewhat counterintuitive notion—that some moving target training can be conducted using stationary targets—may pay benefits in terms of both reduced training costs and improved performance.

Provide more and better feedback. Feedback is probably the single most important determinant of learning. The more and the better the feedback (up to some optimal level), the faster the learning and the better the performance. Feedback is particularly important early in learning, because this is when most errors occur, and these errors can be corrected only if the learner understands where he is erring.

Providing precise shot location feedback has been a peren-

nial problem in marksmanship training. It is difficult enough when using stationary targets. Unless special procedures (such as down-range feedback and known distance techniques) or devices (such as LOMAH) are used, firers obtain little information from target hits (when the target falls) and less information from misses (when the target does not fall). But it is worse for moving targets. Early in training, misses almost always outnumber hits, and the feedback provided by conventional methods can also be misleading. How closely a shot passed in front or in back of a target can easily be obscured by the movement of the target.

It has been suggested that tracer ammunition may be helpful in training soldiers to hit moving targets, but this hypothesis was not confirmed during recent ARI and U.S. Army Infantry Board (USAIB) testing. In any event, tracer ammunition would not be expected to compare to LOMAH technology in

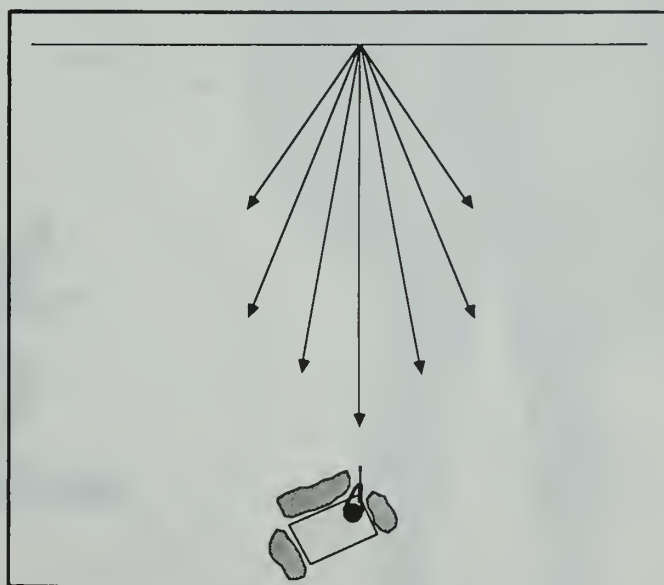


Figure 6. Moving target approaches, posing a significant threat to the firer.

terms of its training value. Using this technology, precise feedback can be provided to shooters immediately after each shot. There is no good substitute for immediate, precise feedback when it comes to getting shots on target quickly.

Improve instructor training. More and better trained instructors are needed to make sure soldiers are taught how to engage moving targets. This is particularly true for units. The observation that moving targets are more difficult to hit than stationary targets means that more soldiers will have more shooting problems than ever before. To be truly effective, instructors must be capable of diagnosing these problems and of helping solve them.

A critical concern is how to help instructors in units meet this requirement. Few soldiers who have to provide instruction can be expected to be proficient at engaging moving targets. FC 23-11 provides guidance on how to conduct moving target training, but the necessary ranges, targets, devices, and instructional materials generally are not available. A partial solution may be to develop unit training packages on moving target engagement for soldiers in Primary Leadership Development Courses (PLDC) or Basic Noncommissioned Officers Courses (BNCOC). A more complete solution may be to provide these packages to soldiers who are preparing to train on multipurpose range complexes. These ranges, which will include moving personnel targets, are planned to help units conduct threat-oriented tactical training.

Downplay the use of automatic fire against moving targets. It is frequently suggested that automatic fire is more effective than semiautomatic fire against moving targets. There is no evidence, however, to support this position. Tests conducted by USAIB and CDEC indicate that carefully aimed semiautomatic fire is more effective against moving targets than full automatic fire. A recent test conducted by ARI also showed that firing a three-round burst against a moving target is no better than engaging that target one round at a time.

Downplay the use of extended scenarios for moving target training. Since RETS targetry is programmable, it is possible to run intensive, threat-oriented scenarios that include both stationary and moving targets. Although these scenarios can be useful for evaluation purposes, they offer little in terms of marksmanship training value. Whether a soldier misses a target or hits it, he has no time to think about what he did

wrong or right; he can only prepare to fire at the next one. If learning is to occur, feedback must be provided, and the learner must have some minimum amount of time to relate what he was trying to do to what actually happened.

A second problem is coaching during a scenario. How can an instructor interact effectively with a shooter? If he waits until the scenario has ended, the feedback is delayed. If he provides feedback as the shooter engages targets, he must compete with the scenario for the shooter's attention. It would appear far better to let soldiers engage moving targets one at a time, coach them, give them precise feedback, and let them think about the results of each shot.

Establish valid performance standards. One of the greatest impediments to a total solution in this area is the lack of valid performance standards for moving target engagement. Understandably, there are good reasons for not requiring all soldiers to qualify annually against moving targets, but it seems essential to require some minimum number of moving target hits for soldiers completing ARM training. (Note that this is *moving* target hits, not a cumulative total of moving plus stationary target hits.)

There are at least two reasons for this recommendation. First, performance standards give soldiers an added incentive to train hard. Second, and perhaps more important, performance standards facilitate the training development process, acting as a driver in the development and implementation of needed training improvements. As an illustration, training devices such as LOMAH, MACS, and Weaponeer II are important for marksmanship training and critical for moving target marksmanship training. In the absence of recognized moving target marksmanship standards, however, there is little justification for buying the additional devices needed to support moving target marksmanship training. Valid performance standards can be established in this area. Only in this way can we be assured that soldiers' moving target marksmanship skills are all that they can be.

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GERMAN INFANTRY

IN THE

1990s

COLONEL GERO KOCH

From now into the 1990s, the Warsaw Pact will steadily continue not only to strengthen but also to modernize its ground forces. It intends to increase its offensive capabilities by improving quality of performance in command and control, reconnaissance, and electronic operations. In addition to having a larger number of armored weapon systems in its armor, armored infantry, and artillery units, it will further increase its combat helicopter components.

In the event of a conflict, the Pact will try to get around a nuclear escalation by launching, as rapidly as possible, a surprise attack with its entire armored combat strength, penetrating deep into the territory of the Federal Republic of Germany (FRG) to defeat NATO's ground forces, if possible, while they are still being deployed. If—despite strong artillery and air support—the attack of the combat tanks fails, owing to the NATO antitank defense front, the armored infantry carried in armored combat vehicles will then attempt

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to break up the NATO defense by dismounted infantry combat.

The objective of NATO's forward defenses is to defeat the aggressor early and near the border so as to reduce damage to West Germany's population and economic potential. As far as possible, therefore, we want to avoid giving up any terrain. But if that is unavoidable, and we must give up some terrain, we are determined to regain it quickly by way of counterattacks.

Under this strategic concept, a characteristic of the intended conduct of operations by West Germany's ground forces is the employment of highly mobile armored combat forces supported by modern artillery and engineer forces as well as antitank helicopters. We must reject the idea of an "area covering defense" by light forces as an essential factor of defense, or any linear thinking in terms of a "Maginot Line." What is not to be ruled out, however, is the use of depth in the defensive areas for the purpose of mobile and flexible operations; this is absolutely indispensable.

During the past seven years, military experts throughout the world have come to realize that high technology alone—armored weapon systems with an almost 100 percent first-round hit probability, artillery ammunition with homing devices or terminally guided munitions, and smart mines—is not the final solution for victory. They now see the need for an adequate number of fighting men on the ground equipped with light firearms who are capable of joining a battle wherever necessary, even at close or hand-to-hand range, and who can win that battle. In short, the wars in the Falklands and in Lebanon (which are only to a limited extent comparable to a possible war in Central Europe) clearly reveal a trend toward the need for fighting infantrymen.

THREE REASONS

There are three principal reasons why more infantrymen are needed in the German Army:

First, between the Baltic Sea and the European Alps, the Warsaw Pact can send into battle first-echelon infantry forces consisting of 140,000 dismounted fighters. Not all of them, of course, are hard-boiled Siberian sable trappers; in fact, most of them are infantrymen who would dismount only reluctantly from their BMPs (armored infantry fighting vehicles) or their BTRs (armored personnel carriers). They are trained for combat operations in built-up areas and forests, however, and are physically fit. What is worse, they are simply too numerous. The employment of sufficiently strong infantry forces of our own, backed by a great artillery effort, is the only way we can counter such an infantry threat.

Second, some 30 to 40 percent of the territory in the Federal Republic of Germany is generally identified, according to military-geographic publications, as covered terrain that restricts the line of sight. It is expected that the densely wooded regions such as the Harz mountains, the Frankenwald, and the Bayrischer Wald—to mention only the most important ones—will continue to exist in the foreseeable future.

But according to a major terrain examination made in the early 1970s, 20 percent of the area in the eastern part along the borders with the German Democratic Republic and

Czechoslovakia is favorable infantry terrain. A typical feature in our country is a mixture of open terrain and restricted and covered terrain. Experts—except for some alternative strategists, perhaps—agree that armored combat forces consisting of a fine blend of main battle tanks and armored infantry fighting vehicles (AIFVs) carrying armored infantrymen (*Panzergrenadier*) and a sufficient number of dismounted fighters, constitutes the most suitable means of operating in such terrain.

Urban areas, though, have grown together to form urban belts, as can be found between Kiel and Luebeck, around Braunschweig and Kassel, and in the greater Nuernberg area. The loss of open terrain, as gradual as it may be, places us under an obligation to develop an improved infantry fighting capability with which to retain at least the key positions on the peripheries of the covered terrain sectors.

The third reason for needing more infantry is that, considering the technological possibilities available even today with our great reconnaissance and target detection capabilities—coupled with more effective ammunition—targets, once identified, will be destroyed rapidly. Saturation fire delivered by artillery weapon systems against armored vehicles will diminish the survivability of those vehicles. Who, then, as a tank commander, will choose to deploy his formations through open terrain, even if friendly forces provide great combat support and smoke screens and electronic counter-countermeasures? Consequently, the scene of combat operations will increasingly be shifted to covered terrain where the attacker and the defender alike must protect their armored weapon systems by deploying dismounted infantry around them.

Infantry, therefore, should always be considered as a part of the force and never in isolation. A planning solution that envisages the accomplishment of all combat force missions with infantry only, or with very few battle tanks, will surely be wrong for Central Europe. Infantry must always be seen in the context of combined arms combat operations. Accordingly, what matters is a proper balance of infantry in the overall structure of the German Army.

ARMORED INFANTRY

To conduct highly mobile operations, and to be able to generate and rapidly shift the main effort, the infantry in our forward-deployed brigades (which have to start combat immediately and close to the border) must be *armored* infantry. Armored infantry is capable of operating either mounted or dismounted, with the main emphasis to be placed on its capability for dismounted combat. It can also carry out combat reconnaissance, covering operations, combat at barriers, and even some antiaircraft and antihelicopter defensive roles.

Given appropriate training, armored infantrymen can also conduct operations in built-up or wooded terrain. They have their AIFVs (*Schuetzenpanzer*) continuously available for direct fire support. Moreover, mounted in AIFVs, they can be shifted rapidly while being protected against infantry fire and artillery shell fragments. The vehicles also offer collective NBC protection and can be used to transport supplies and casualties.

The AIFV for these forces must be capable of moving a rifle squad (*Schuetzenztrupp*) rapidly and as safely as possible to the battlefield or to any other location of combat. In addition, the AIFV must carry a main weapon that can defeat the weapon systems of the Warsaw Pact's BMPs at medium ranges. According to all available information, a vehicle-mounted, rapid-fire cannon is best suited for this purpose, now and in the future.

In addition to the AIFV, the armored infantry needs its own armored vehicles carrying weapon systems for antitank defense and high-angle fire. All of these vehicles must have a high degree of tactical mobility so that the infantry units can be immediately concentrated at the enemy's points of main effort.

The weapon systems of the armored infantry must be so designed that they can follow main battle tanks. The AIFV, however, should be capable of keeping pace with the battle tank, even though in terms of protection it will never equal the tank because of its relative weight. The antitank defense weapons and the weapons employed against soft targets should be so designed that they can rapidly open fire and mass firepower. At the same time, armored infantry battalions must be able to operate without being reinforced by tanks, at least in defensive operations.

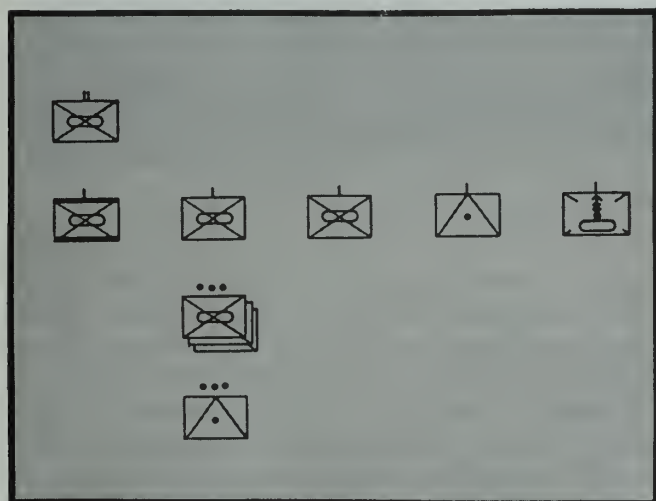


Figure 1. Armored infantry battalion in armored infantry brigade.

In preparation for the 1990s, our present armored infantry units should undergo some changes in organization and equipment. Let me mention two key principles for the armored infantry of the future:

- There should be an organic mixture of armor and armored infantry at battalion level. (See Figures 1, 2, and 3.)
- Today's AIFV Marder should be replaced with two infantry weapon systems—one an AIFV for the rifle squad with a rapid-fire cannon, the other a carrier for a 120mm gun in the antitank role.

It will then be possible to move infantry fighters fast while protecting them in defensive positions, which can offset, to a certain extent, the numerical superiority of the enemy's infantry in his mechanized divisions.

As for light infantry, in addition to the special infantry in the airborne brigades (*Fallschirmjaeger*) and the mountain

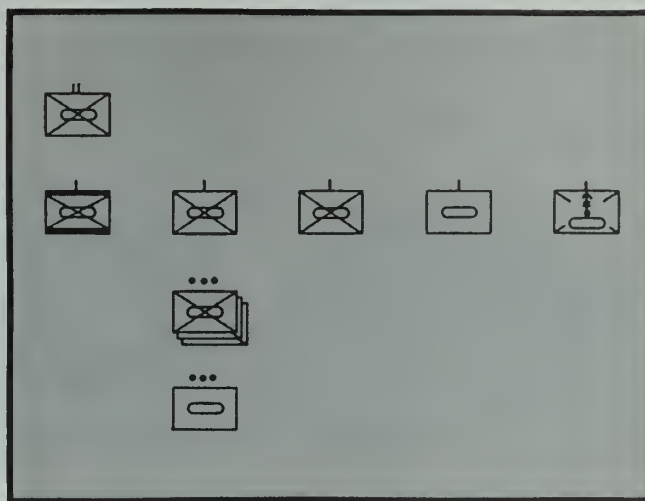


Figure 2. Armored infantry battalion in armor brigade.

brigade (*Gebirgsjaeger*), the German Army has a considerable number of other light infantry elements (*Jaeger*). Most of these units are part of the Territorial Army and are predominantly skeleton units—that is, they are not continuously available in peacetime and are dependent on mobilization, in terms of both personnel and equipment. These are forces that will assume the vital tasks of area defense and vulnerable point protection in the rear combat zone.

But we have some light infantry formations in the Field Army, too, that many overlook—namely, two light infantry battalions (*Jaegerbataillon*) and one security battalion (*Sicherungsbataillon*) per division. Unfortunately, with some minor exceptions, these are also skeleton units that will not be operational and at their divisions' disposal until a few days after the outbreak of a war. As in the case of the Territorial Army formations, the reservists are mostly inadequately trained as infantrymen. In view of the great infantry wartime augmentation requirements, there are not enough active peacetime formations that would be capable of providing genuine specialists suitable for wartime light infantry combat operations.

Moreover, the structural integration of the light infantry bat-

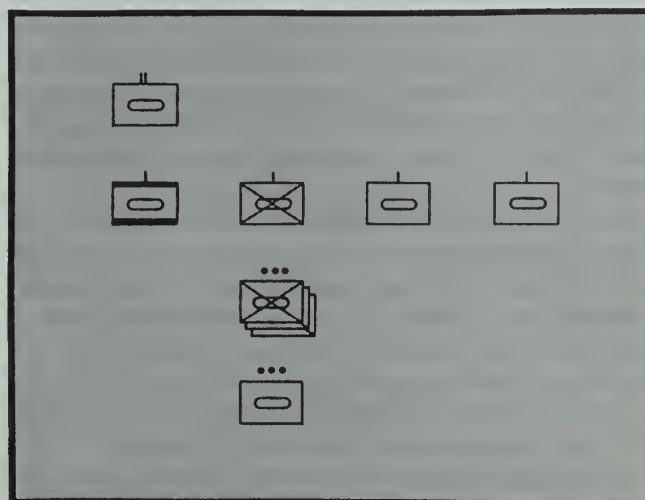


Figure 3. Armor battalion in armored infantry and armor brigades.



Infantry should always be considered as part of the force and never in isolation.

talions as divisional units is unfavorable. What is lacking is a next higher command with an appropriate headquarters to coordinate and control, in a consolidated approach, the light infantry units and their assigned combat support.

Placing light infantry battalions under the command of heavy brigades is not always the best solution either. A light infantry unit as part of a major formation consisting mainly of armored combat forces will always be somewhat alien and may even become a hindrance in the course of mobile operations. Light infantry forces need time to prepare their defenses. That is why they cannot easily be shifted from an assigned mission. Their soft-skinned vehicles permit mounted movements only in those areas where the enemy cannot engage them by direct fire. They have a certain dependence on the road network.

The experiences of the airborne brigades (*Luftlandebrigaden*) and the mountain brigade (*Gebirgsjaegerbrigade*) have shown that light infantry is more effective when used in mass, in an order of magnitude that permits combat missions to be accomplished independently. This means, of course, either the allocation of heavy weaponry or the assignment of reinforcements. Terrain that is unfavorable to armored offensive forces will always be an indispensable prerequisite.

In 1980, with Army Structure 4, the light infantry brigades (*Jaegerbrigaden*) that the German Army formerly had were changed to armored infantry brigades (*Panzergrenadier-*

brigaden), and that is what they should continue to be. The 34 mechanized brigades (*Panzer-* and *Panzergrenadierbrigaden*) of the German Field Army definitely constitute the minimum armored force needed for forward defense in the German sectors of the NATO defense line. It is therefore additional forces that are in question. Given the financial limitations and, even more critical, the shortage of personnel that is expected for the 1990s in Germany, these additional infantry forces will have to be formed from the present army structure.

A promising and perhaps necessary approach to putting more infantry forces in the Field Army would be to develop a light infantry regiment (*Jaegerregiment*) for each of several regionally selected divisions. The current light infantry battalions would be the basis for the establishment of the regiments, in terms of both personnel and equipment. (A proposed organization is shown in Figure 4.)

The divisions selected to get a light infantry regiment should be only those defending far forward; the divisions earmarked as reserves would not have them. The regional allocation would be determined by the pre-planned area of operation; that is, the forces would be allocated only if a division's assigned sector was of an appropriate size and favorable for light infantry operations in the defense so that the light infantry regiment could be employed in mass.

In the 1990s the major consideration will not be to retain individual forests or hamlets and villages around which the

battle of armored combat forces is being waged. The important thing will be to conduct a mixture of defensive and raid-type operations in covered and dense terrain sectors that are of operational significance. This presupposes, however, more than a single light infantry unit equipped with heavy weaponry. That formation would have to be in position to fight an operation and display a strength somewhat equivalent to the potential of an airborne brigade committed in a defensive role—a capability that *almost* corresponds to combined arms operations.

Through the employment of a light infantry regiment in wartime, two major aims could be pursued:

- Brigade-size armored combat forces could be released for other responsibilities as part of the mobile defense operation.
- The regiment could be used as a force breaker against attacking forces and as a cornerstone of its parent unit's own mobile operations.

At the present, a German division conducts its operations by using three maneuver elements (equal to three mechanized brigades), while shifting its main effort by employing divisional artillery and assigned antitank helicopters and by implementing its engineer barrier measures. If the division's armored reconnaissance battalion is employed as a combat unit, it joins the battle as a fourth (smaller) maneuver element.

The art of mobile operations consists first and foremost of breaking maneuver elements away from the aggressor again and again and of actively recommitting them at the enemy's weak points. Division and corps commanders, if they want to retain the initiative, must always endeavor to bring part of their maneuver elements to bear on the enemy. It may even be possible today to have the armored reconnaissance battalion relieve a brigade that is under less severe pressure. In the future, by using a light infantry regiment in a static defense, one mechanized brigade could be immediately and readily available for use as a knight or bishop, as in chess.

In its light infantry battalions, the light infantry regiments would have to have a great number of dismounted fighters as their key element and, in addition, have an adequate number of organic heavy weapons for antitank operations and supporting direct and indirect fire.

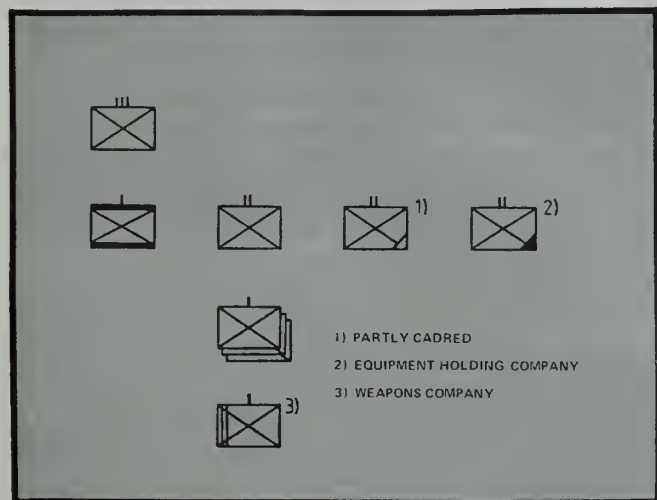


Figure 4. Light infantry regiment in armored infantry and armor divisions.

In the light infantry companies of the regiment, only small arms for infantrymen, including handheld antitank weapons (*Panzerfaust*), should be used but the latter should be available in sufficient quantities. In that way, light infantry reverse slope positions with fields of fire of 300 to 400 meters could be used to best advantage. Organic support elements, such as antitank rockets, rapid fire cannons, and mortars, which would all be mobile and mounted on carrier systems, should be part of the weapons companies.

In addition, the division would have to provide for the necessary combat support by artillery, engineers, and anti-aircraft units. The stronger that support, the more valuable the light infantry regiment would be as a cornerstone and force breaker in defensive operations.

TWO MAIN PURPOSES

As far as the regiment's peacetime duty is concerned, I see again two main purposes:

- The training of conscripts as infantrymen.
- The training of reservists, including "re-training."

It is no secret that we are now lacking infantrymen in our active units, and that they are also the most wanted type of soldier in our alert reserve components. It is quite natural that one shortage is contingent upon the other. Light infantry regiments would be a remedy for that shortage.

In the 1985 White Paper issued by the German Ministry of Defense, it was announced for the 1990s that a great number of reservists would continually undergo training in the army. Some of these soldiers could serve in the light infantry regiments where they would be given further training as infantrymen or re-trained from previous assignments in other arms or services.

I therefore believe that a three-fold structure for the proposed light infantry regiments would be a practicable solution:

- Active companies with personnel doing their basic military service.
- Partly cadred companies with a capacity for training reservists.
- Companies organized as equipment holding units.

It was only quite recently that the commanding general of a German corps stated in public that today's military training is often no longer oriented toward the realities of war and that the burdens of battle as they affect the psychic and physical attitudes of men are often inadequately imparted to our soldiers. In general, this handicap has resulted from the nature of peacetime training, including the necessary safety regulations. But it is precisely in light infantry regiments that the training could be more challenging and conducted under more realistic conditions.

For these reasons, personnel selected either as instructors and recruits or as reservists to be trained, must be physically fit. Physical endurance and sports activities must be placed high on the list of priorities for day to day duty.

A 14-day training exercise for a reservist, in some of its essential parts, could also be a sort of "adventure holiday" including "fitness training." A reservist, who should live in

the vicinity of his garrison, should regard his reserve training not only as a civic duty but also as a useful experience in a community of men where he is expected to display a particularly fine duty performance. In time, a light infantry regiment might grow into a regional "militia-type formation" to which the reservists might feel attached even after their active duty period had ended.

A good model for this proposed light infantry regiment may be the United States' new light infantry division, which our allies expect to consist of determined and iron-willed combat troops capable of engaging in any kind of classical infantry warfare. According to the information available so far, a mass employment of that division in Central Europe is not foreseen, but its major units—employed between brigades of armored combat forces—are expected to control terrain that is favorable for infantry operations. That is precisely my idea of the function of a German light infantry regiment — as an integral part of the mobile operations to be conducted within the framework of our Forward Defense concept.

Another change that needs to be made is in infantry weapons and equipment. In addition to their heavy weapon systems, infantrymen, more than all other soldiers, must be equipped with highly effective handheld weapons for dismounted combat at close ranges. Such weapons might include the following:

- An automatic rifle with a combat range of up to 300 meters that is as light as possible and that could replace both the submachinegun and the pistol. For snipers, a special version of this rifle with a combat range of up to 1,000 meters will again become necessary.

- A machinegun with a combat range of up to 1,000 meters will gain in significance, since rifles are to be lighter and will probably fire smaller-caliber ammunition.

- A grenade weapon that can fire grenades at point targets in defilade at ranges of up to 300 meters. In addition, it should replace the single-blast flamethrower and the signal pistol, and the grenades should also be capable of being thrown as hand grenades.

- A handheld antitank weapon with a combat range of up to 300 meters that can defeat all battle tanks of the 1990s. It will be the ultimate means of self-defense in emergencies if a tank attack cannot be stopped with a unit's heavy antitank weapons.

It is especially important for the infantry to have its own mines (including antitank horizontal mines) and digging equipment, as well as night vision and night sighting equipment.

The personal equipment of the infantryman must be designed to take into account the extremely high physical stress to which he will be exposed. Everything should be lighter and simpler; many sports items or camping and hiking equipment items should be regarded as exemplary for this purpose. Protection

against cold and especially wet weather should be given a high priority.

Fragment-proof vests, such as those successfully used by the Israelis in Lebanon, are absolutely essential and must be fielded in the German infantry in the near future. If these vests are to be suitable for the infantryman, they may not offer much protection against rifle bullets but they can reduce shock and repel shell fragments and thus help lessen the number of fatalities.

Infantrymen of all types—armored, light, or mountain, as well as airborne—are the classical fighters. They must fight against both men and machines and continue to fight when their own machines (the heavy weapon systems) have failed. They must fight at combat ranges frequently so close that they can see the enemy directly. And they must meet the highest standards of physical fitness and character.

The main infantry role during operations is in overgrown terrain—in built-up areas, in wooded terrain, at river lines, and at field fortifications. Even in open terrain, infantrymen do not become spectators but strongly support the tank battle. Since our terrain consists of a varying mixture of open and overgrown terrain, infantrymen will again and again have to assume the main role in combat.

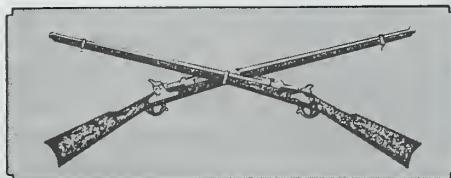
Only the infantryman will ultimately be able to hold or occupy terrain, to penetrate even into difficult terrain, and to fight practically everywhere at ranges between zero and 2,000 meters.

But he will always need to be supported by direct and indirect fire weapons and combat helicopters. When fighting on foot, he is, in the longer run, too slow, which means that he needs vehicles whose armor considerably improves his survivability. Thus, the various arms not only constantly interact but are also obligated to closely cooperate.

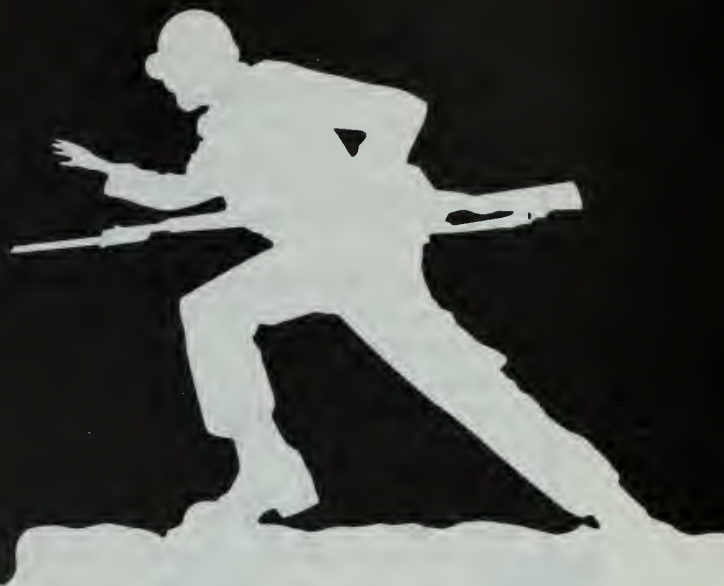
Although the battle tank will maintain its leading role as the decisive weapon system in the land battle, in the future we are also likely to experience a renaissance of the infantry. The bulk of our future infantry should be made up of armored infantry as a part of the German Army's armored combat forces, but light infantry units of regiment size—used in particularly suitable terrain sectors and with specifically tailored missions—would become the pillars of a generally mobile defense.

Increasing the combat elements of the German Army means increasing NATO's conventional defense capability in Central Europe.

Colonel Gero Koch is commander of a German armor brigade (*Panzerbrigade*). Previously he commanded at platoon, company, and battalion levels in armored infantry (*Panzergrenadier*) and light infantry (*Jaeger*) units. He served in several general staff positions and also as a defense attache in Southeast Asia.



Infantry In Action



INFANTRY CHARGE

Major Garold L. Tippin

EDITOR'S NOTE: This is another in our Infantry in Action series. We use the series to highlight the U.S. Infantryman through historical accounts of his past combat actions during World War II, the Korean War, and the war in Vietnam. This

article has been reprinted from our 1967 book, INFANTRY IN VIETNAM (pages 125-129), and reinforces our belief that the U.S. Infantrymen is one of the best fighting men in the world.

There are times when many of the fundamentals of offensive combat must be put aside and a decision sought by an overwhelming infantry assault on an enemy's fortified position conducted by an aggressive, well trained rifle company. No better example of this can be found than that illustrated by the actions of Company C, 1st Battalion, 35th U.S. Infantry in difficult terrain about 15 kilometers southwest of Duc Pho in July 1967.

On 15 July 1967, Company C was on a search and destroy operation in an area that consisted of rugged mountains whose slopes were covered with thick jungle undergrowth. In most places the double jungle canopy shut out the sunlight, while the temperatures hovered during the daylight hours near the 100-degree mark. During the previous days, the 1st Battalion had received intelligence reports that a North Vietnamese Army (NVA) battalion was operating in the area; hoping to locate the enemy and thus gain tactical surprise, the battalion commander, Major James E. Moore, Jr., had decided to send Company C to seek out the enemy unit and bring it to task.

Company C moved south on two axes: the 2d and 3d Platoons on a high ridgeline with the remainder of the company moving parallel in the valley below. Captain John H. Cavendar planned to swing his two platoons on the ridgeline down a finger a little farther on to join up with the rest of the company.

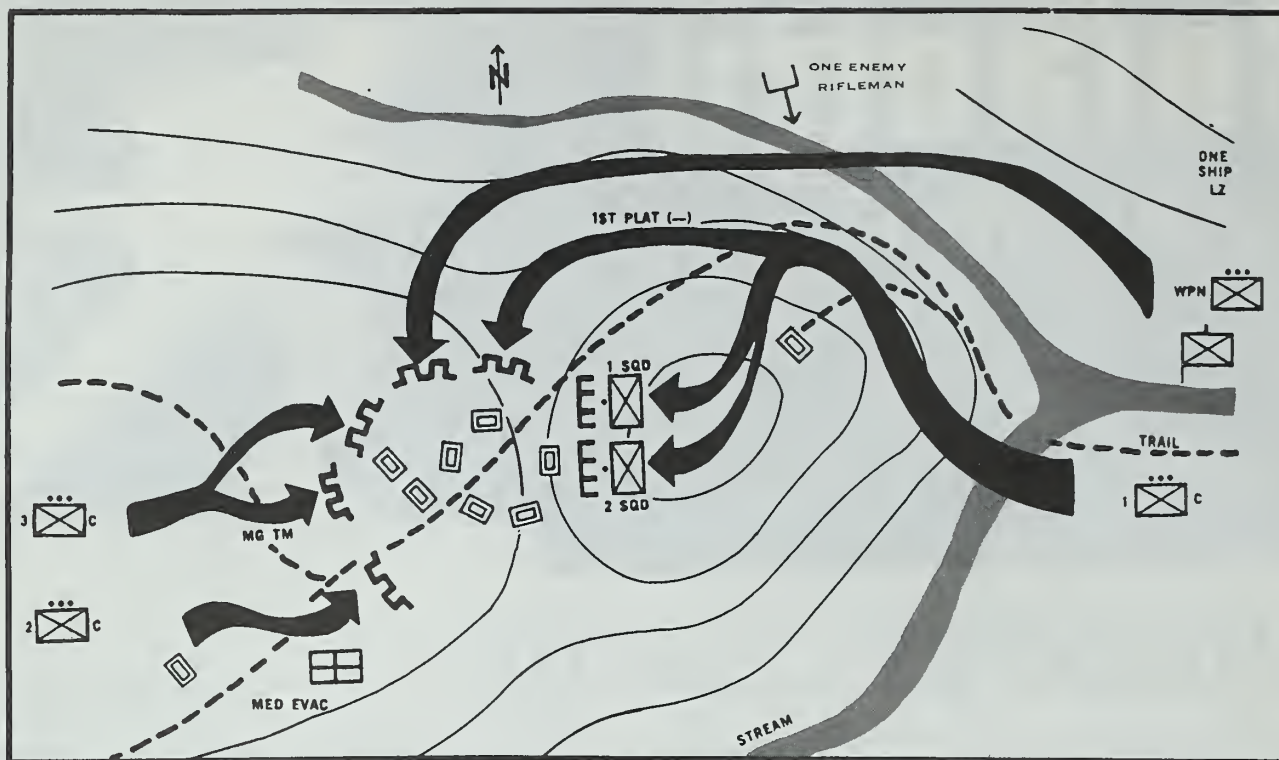
At about 1000, the two platoons began their movement downhill. The 2d Platoon was leading, with the 3d Platoon following and echeloned to the left. Thirty minutes later, the 2d Platoon noticed an enemy bunker positioned to fire east down the finger. Three NVA soldiers ran from the bunker

but were quickly cut down (see map). The platoons continued their downward trek.

Suddenly, and without warning, an enemy force hidden in the jungle opened fire—intense, deadly. Nine U.S. soldiers went down almost immediately. But the remainder, following the orders of their leaders and reacting with machine-like precision, built up their own firepower; the LAW was used to good advantage, and the enemy firing decreased in intensity. But the 3d Platoon, trying to flank the enemy position, also ran into heavily fortified bunkers and it, too, was soon engaged in a hot firefight with an undetermined number of enemy soldiers.

Captain Cavendar, hearing the sound of firing above him, began moving his 1st and 4th Platoons up the finger to close the pincer on the enemy force. Since the vegetation on the finger was so thick, Cavendar sent the 1st and 2d Squads of the 1st Platoon toward a small knob east of the enemy to act as a blocking force, while he maneuvered the remainder of the 1st Platoon and the 4th Platoon, reorganized for this operation into a rifle platoon formation, to the north. When his units were in position, he moved forward with a squad to locate the exact extent of the enemy's positions.

Major Moore had been in the air over the battle zone since 1100 and Captain Cavendar radioed a request to him for an ammunition resupply drop and for a medical evacuation mission for two of his more seriously wounded men. In the meantime, he halted all forward movement until he could move his 90mm recoilless rifle forward to a position from which it could be brought to bear on the enemy's bunkers.



Infantry Charge

There were no landing zones in the area, so Cavendar had one squad from the 2d Platoon back off 100 meters to care for the wounded and to assist in the resupply mission; the men fell to clearing away the underbrush for the medical evacuation helicopter and for the supply drop, while Major Moore headed back to the firebase to pick up ammunition. He returned within a few minutes, and as his helicopter hovered at treetop level the ammunition was pushed out to the waiting men below.

Using LAWs again, the 3d Platoon maneuvered and destroyed the bunkers which were holding up its advance, but it soon began to receive fire from further to the east. Supporting artillery fires could not be brought in because of the denseness of the jungle and the nearness of the platoon to the enemy, and gunships could do little through the thick jungle canopy. Moore suggested to Cavendar that the company move back while he brought in an air strike, but Cavendar intimated that his platoons would sustain too many casualties in trying to withdraw since the enemy's fire was so heavy and accurate. Because he had all of the escape routes cut off, Cavendar felt that as soon as his recoilless rifle came up to take direct shots at the bunkers, he could knock out the enemy's strong point and Company C could then launch a final assault.

At 1420 the medical evacuation helicopter had arrived, used its hoist to pick up the two wounded, and had departed. But there were 14 more wounded now who needed help and the battalion's surgeon, Captain Carroll P. Osgood, volunteered to be lowered to Company C's position to care for the wounded and organize their evacuation. On the medical evacuation helicopter's third trip, Captain Osgood was lowered into the area, with much-needed blood plasma. Unfortunately, the hoist on the helicopter broke, so a CH-47 Chinook was requested to hoist out the remaining wounded.

When the larger helicopter arrived, four more of the

wounded were hoisted aboard, where the surgeon from the 3d Brigade, 25th U.S. Infantry Division—Captain Dennis E. Lee—instituted further medical treatment. But since the hoist did not function properly, a total of 45 minutes was consumed in getting the four wounded up into the ship. As a fifth casualty was being lifted, the hoist stuck; unable to move the hoist either up or down, the helicopter commander decided to chance a flight to the nearest medical installation with the wounded man dangling below his ship. And so he started, but Major Moore, observing the happenings, directed the Chinook commander to proceed to an open area which he could see off in the distance. Moore then had his pilot land his ship in that open place, and dismounting, as the Chinook again hovered, removed the wounded man from the hoist. Loading the soldier into his helicopter, Major Moore delivered him to the medical evacuation center.

With Captain Cavendar, though, the recoilless rifle had not made as great an impression on the enemy as he had hoped. Although the crew of the recoilless rifle did get several direct hits, the thick vegetation hampered their efforts. The enemy's fire was extremely accurate and the company's casualties were steadily increasing—it seemed as though every time one of the men exposed himself, he was hit by an unseen marksman.

Cavendar decided that the time had come for Company C to assault the enemy bunkers—to stay where it was would only invite complete disaster. At 1600, then, using the 2d and 3d Platoons as a base of fire, Cavendar led the two squads of the 1st Platoon and the 4th Platoon in a final assault. Rising as one, shouting and screaming at the tops of their lungs, the men charged forward.

The enemy soldiers were caught unawares, and as the U.S. soldiers closed in on them, some fled from their bunkers while others cowered behind their erstwhile protection. As the men

from Company C ran forward they threw hand grenades in the enemy bunkers and fired at the enemy soldiers who were attempting to flee. Not until the positions had been overrun did they realize there were five large bunkers arranged in a circle instead of the one or two they had expected to find.

After the battle, Captain Cavendar said:

This battle was won by the men; not artillery or airpower—but the infantrymen who were willing to close with and destroy the enemy. They did everything I asked of them and more. Once we started our assault I knew that it would soon be over, and victory was ours.

The longer we stayed where we were, the more casualties we were taking. I have never seen enemy fire so accurate. It seemed like every time a man moved he was hit. We were too close for artillery and air, and we couldn't pull back without

taking a lot of casualties. I know Charlie was surprised when we charged. His fire was still heavy—but not as accurate and we could see some of them trying to run out of their holes. When I heard the men yelling and saw the determination on their faces, I was proud to be an infantryman and their company commander. I sure would not have wanted to be in one of those bunkers.

I still prefer to use our basic concept of finding and fixing the enemy—then use all the artillery and air we can get. However, I feel that on that day I fulfilled a company commander's dream: to lead his men in an overwhelming, successful assault of an enemy fortified position. We learned an important lesson that day—an aggressive, well trained American rifle company is the ultimate weapon.

SWAP SHOP



DOUBLE-STAKED CONCERTINA FENCE

The purpose of an obstacle is to divert the enemy or delay him by making him either redeploy or conduct a breach.

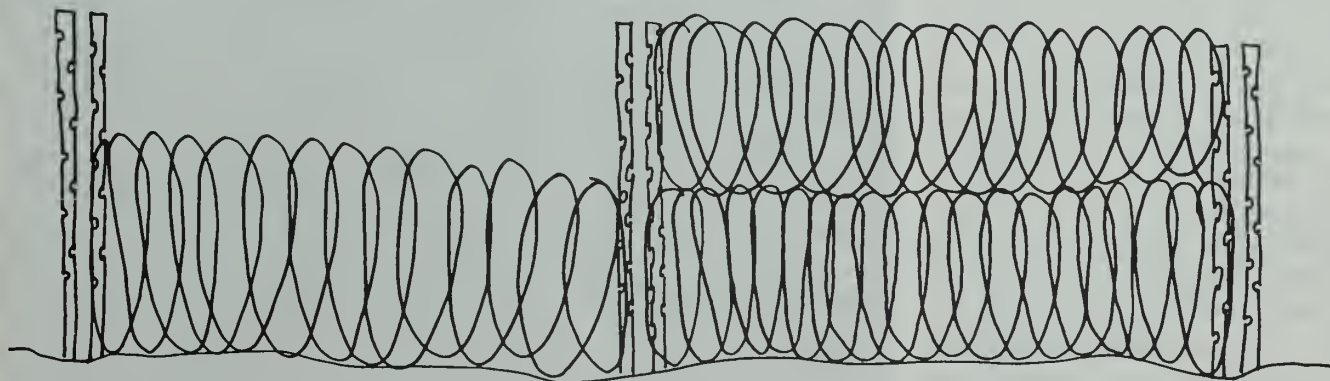
When adjoining ends of the concertina rolls in a wire obstacle have been attached to each other or to a common anchoring stake, an opposing force (OPFOR) can remove literally hundreds of meters of connected fencing with a grappling hook attached to a single vehicle. The moving wire tangle can also detonate any tilt-rod antitank mines or any antipersonnel devices deployed on or near the fence.

Once such a large breach has been created, OPFOR dismounted or mounted elements can pass through it without having to redeploy from combat formation. They can maintain their momentum and make the most of their combat power, thus rendering the obstacle useless.

When double anchoring stakes are used to fasten adjoining wire rolls independently, however, a single breaching vehicle can remove only one roll-width of wire at a time, creating a single 10-meter gap.

The enemy must then move from his deployed combat formation to march column to pass through the narrow gap one vehicle at a time, or he must expend critical time in a probable engagement area conducting other breaches. Either way, he presents a lucrative target and the obstacle accomplishes its mission of slowing him down.

Note in the sketch that the end of each concertina roll is independently attached to a stake anchored three to six inches from the next one.



(Submitted by Major David J. Ozolek, 7th Army Training Command)

TRAINING NOTES



Point Man Training

CAPTAIN SCOTT E. HAMPTON

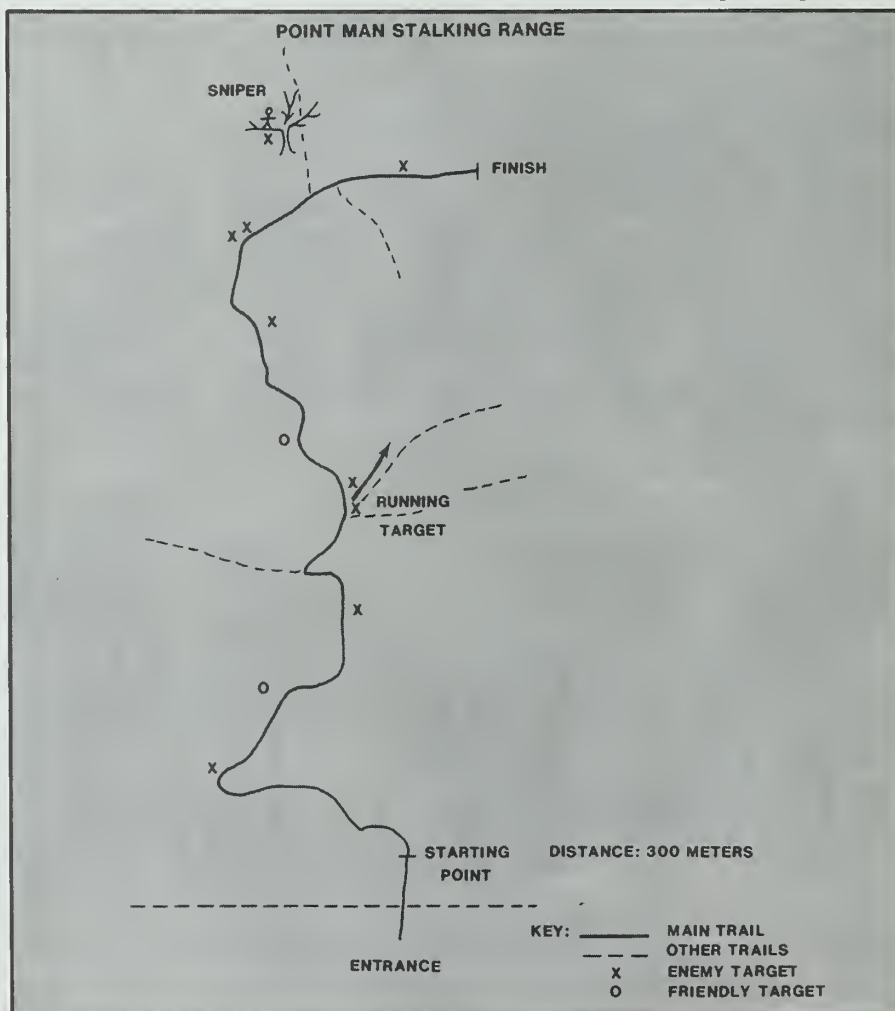
A good point man can provide the early warning necessary for a squad to complete its mission while keeping friendly casualties to a minimum. A poor point man can endanger the lives of his entire squad. Unfortunately, many units in the Army do not have a standard training program that emphasizes the valuable live fire skills and stalking techniques a soldier must use to be an effective point man.

The 1st Ballalion, 35th Infantry (Light), during the time I was assigned to it, researched the subject and developed an effective point man training program similar to the Australian Army's "Sneaker" range. In brief, it was a live fire training program conducted in three phases—a quick fire familiarization drill, a quick fire qualification exercise, and a live fire stalking exercise.

The quick fire familiarization drill was conducted with M16A1 rifles on a combat pistol qualification range. During the drill, each firer taped his front sights to avoid aiming. Each practiced the quick fire techniques outlined in FM 23-9 on a 15-meter target and continued to fire one shot at a time, regardless of the ammunition required, until he had mastered the skill on that target. A coach stood behind each firer to guide the strike of each round on the target, much as an assistant gunner does for his machinegunner. Once he was deemed to be proficient

on the 15-meter target, a firer and his coach repeated the process on the 31-meter target.

When a firer had mastered both targets with the single-shot technique, he went back to the 15-meter target and practiced



the "double shot" technique, in which he fired two quick shots while stepping toward the target. This double shot procedure was repeated on the 31-meter target until the firer mastered it.

The quick fire qualification exercise was conducted on the same range using the combat pistol qualification firing tables (DA Form 88). Each firer received three 20-round magazines, stood at the ready position on his lane, and engaged each target with the double shot quick fire technique. The target operator controlled Tables I and III and then gave the firer eight seconds to change magazines. He then controlled Tables II and IV and allowed eight more seconds for changing magazines before finally controlling Table V. The coach scored the firer. Amazingly enough, the average point man qualified as a sharpshooter; many also qualified as expert shooters.

The third phase was conducted on the battalion's point man live fire stalking range (see sketch). This range placed the firer in a realistic field environment walking point and called for him to use the quick fire and stalking techniques his squad leader had previously taught him. (Any unit can construct a similar range. It should cover several hundred meters of wooded terrain and should integrate friendly and enemy pop-up targets, including snipers and moving targets, and anything else a unit can think of within safety limits.)

A squad leader and target controller followed a point man along the course and acted as members of a squad. When the point man saw a target, he fired, using the double shot technique, and took cover. If he missed the target, he shot again from the prone unsupported position. He continued in this manner until he reached the finish line.

Throughout the course, squad leaders continually stressed those quick fire and stalking techniques that had proved effective in Vietnam and that can be used to save lives in future conflicts. Among the quick fire teaching points were the following:

- Aim low to counter the natural tendency to aim high.
- Because the first shot will probably be high, the double shot technique should be used to ensure a quick kill.



Soldiers of the 196th Infantry Brigade move out on patrol—15 miles west of coastal Tam Ky, 1969.

- Always be conscious of how many rounds you have in the magazine in your rifle and change when there are only three or four rounds left. One technique is to load a tracer round fourth from last in your magazines as a signal to change.

- Place full magazines in the ammunition pouch with the open rounds at the bottom, facing out, for quicker magazine changes.

- Keep your weapon on "semi-automatic" at all times. All other members of the squad should have their weapons on "safe."

- Step toward your target with your lead foot to establish your quick fire aim.

The following stalking techniques were taught:

- Don't try to kill everything that moves. Stay aware of the friendly situation and the local populace and focus on the hands of possible enemies, looking for weapons.

- After firing your double shot at the enemy point man, immediately hit the dirt and continue to return fire; the enemy point man's first instinct is also to return fire.

- When approaching a curve in a road or trail, stop on the inside of the curve and signal the "slack man," who is behind you, to approach the outside of

the curve. The slack man should continue to move around the curve to make sure no enemy is present and then signal you to continue.

- Halt at trail or road intersections until the slack man conducts a security check of the adjoining trail. The next man back should then cover the slack man and so on throughout the patrol.

- Always be conscious of the ground in front of you. Broken brush, footprints, dead foliage, scuff marks, or manmade materials are all signs of what is out front. Pay particular attention to trip wires; booby traps may be everywhere.

- Always pay strict attention to your front and flanks, and remember possible sniper locations above eye level. Also be alert for any unusual sounds or odors, because these can help you detect the enemy before he detects you.

These lists are not all inclusive, but a training program such as this one, combined with a unit's standing operating procedures, will instill in soldiers the confidence and knowledge they need to be good point men.

Captain Scott E. Hampton is a 1982 graduate of the United States Military Academy. He served as a rifle platoon leader and scout platoon leader in the 1st Battalion, 35th Infantry at Schofield Barracks, Hawaii.

The XO as 2IC in a Light Infantry Company

CAPTAIN WILLIAM B. CREWS

By its nature, a light infantry company tends to be dispersed over a fairly large area during many of its missions, and this dispersion makes command and control difficult. The most effective way of improving this situation, under the current MTOE, is to increase the number of experienced leaders who are involved in combat operations. The most obvious individual is the company executive officer (XO).

As currently organized under the J-Series MTOE, a light infantry company has no vehicles. Its company headquarters consists of the company commander, the XO, the first sergeant, the communications chief, the NBC NCO, the supply sergeant, the armorer, and two radio telephone operators (RTOs). To have this entire group, except for the commander and his RTOs, in the trains is wasteful in light of what these people can do in the line platoons. In most cases the first sergeant, if not the supply sergeant, can ensure that the company stays supplied. Having the XO in the trains is not only

redundant but often counterproductive.

An XO is usually the second most experienced officer in the company. He is also a "commander-in-training," not merely an administrator. If he is to be prepared to command a company, either through the loss of his commander or when he gets his own company, his place is in the field with the company, not back with the trains.

There are numerous tactical roles that an XO can easily assume. The first is pickup zone control officer (PZCO) during airmobile operations. Using the XO in this role allows the commander and the platoon leaders to devote their time and energy to developing the ground tactical plan. At the same time, the XO ensures that the manifests reflect the commander's concept of the operation and conducts any necessary coordination with the air mission commander (AMC). Naturally, the commander should coordinate in person with the AMC if there is time; as often as not, though, the operation will not permit him this luxury.

The XO in this role also makes sure the PZ is swiftly evacuated, which includes implementing the "bump" plan, and is responsible for the straggler control point, a particularly important duty at night. In the case of an extraction under fire, the commander continues to fight the battle while the XO makes sure the unit is quickly moved off the PZ. As PZCO, the XO is on one of the last sorties into the LZ, and this means an experienced officer who is familiar with the tactical plan is on the ground at what could be a critical time.

Because the XO is usually closely attuned to the commander's method of operating, he is also a valuable subordinate leader for tactical reconnaissance and quartering parties. As the leader of a quartering party, he again allows the commander and the platoon leaders to concentrate on moving the company or on follow-on operations. If the XO leads a tactical reconnaissance, he can identify assault positions, probable lines of deployment, and objective rallying points





"Light Fighters" from the 7th Infantry Division (Light) assault a simulated enemy position during training.

for the commander. The XO tends to be more thorough in this role than a platoon leader, who is often primarily concerned with the area his own platoon will use. The XO can also pinpoint the objective and keep it under surveillance until the company arrives. This allows the company to move quickly to the objective, particularly in night operations. The information the XO obtains can reduce the amount of reconnaissance the unit must perform once it arrives in the objective area. If the information is transmitted to the company before it moves, or while it is en route, the commander has more time to adjust his plan and issue a fragmentary order, if one is necessary.

When the company is defending, the XO can be positioned at the second most critical area, where he can help the commander control the battle. He can also act as a disinterested observer, objectively reporting his observations of the battle in that area to the commander. This will give the commander a second opinion of the situation, an opinion that can provide a counterpoint to the sometimes less than objective reports from the platoon leaders.

In offensive and decentralized opera-

tions, the XO is valuable as a detachment commander or as the commander of the company base of fire. If the Dragon section is being used as a rifle section, for example, placing this section and a rifle platoon under the control of the XO increases flexibility and reduces the commander's span of control. During a more deliberate offensive operation, the commander may consolidate the fires of the Dragon section, the mortar section, and several machineguns into a base of fire under the XO.

One of the XO's most important functions may be to serve as the commander's staff. He is, after all, the only other officer in the company who is familiar with the various logistics functions required if the company is to operate smoothly. This is particularly important when plans are made in the field without immediate access to the first sergeant and the supply sergeant. By studying the warning order and getting the commander's guidance and tentative plan, the XO should be able to get the logistical effort moving while the commander again concentrates on the tactical aspects.

To be most effective, the XO needs a radio. An AN/PRC-77 radio can some-

times be taken from the company headquarters or the Dragon section and given to him. Or, if the terrain allows the mortar section to fire by direct alignment, the XO can use that section's radio. (Ideally, each company should have two more AN/PRC-77 radios. This would allow the establishment of another headquarters and enable the XO to communicate on the company command frequency as well as on his own internal net. At the very least, one AN/PRC-77 and one small unit transceiver should be added.)

As a valuable subordinate leader, the XO is much more useful in the company command post than he is in the trains. Both his own professional development and the needs of the company demand that he be used tactically to the greatest possible extent. If he has his own means of communication, the XO can take a tremendous burden from the company commander and can add a greater degree of flexibility to light infantry company operations.

Captain William B. Crews served in the 7th Infantry Division (Light) as a brigade assistant S-3 and as a company commander in the 2d Battalion, 32d Infantry. He is now Assistant Inspector General, U.S. Army Recruiting Command.

MOUT and the Medic

CAPTAIN DAVID A. RUBENSTEIN

"MEDIC!" is a call that comes often from the battle positions of an infantry platoon in an active combat situation. In most such situations, an aidman will rush to the side of the casualty and give him the best possible first-level medical care.

But when that same platoon is involved in military operations on urbanized terrain (MOUT), the problem of caring for casualties becomes significantly different. And because our infantry units are likely to be engaged in such operations in any future war, we must train today to make certain we can take care of our casualties tomorrow.

What follows, then, are the major health service concerns an infantry battalion's medical platoon leader as well as its infantry leaders must consider when planning a proper training program.

- Successful training depends on all elements of a command working together. Therefore, medical personnel must be involved in planning all MOUT training. Not only will this ensure prepared, high quality medical training and the integration of an important element of the combined arms team, it will also give infantry leaders a better understanding of the medical support concept of operations.

- All leaders must see to it that self-aid and buddy-aid training is regular, demanding and, above all, realistic. In a MOUT situation, more casualties will be caused by disease and burns, from crushing and fragmentation injuries, and from stress. These areas, therefore, should be highlighted during all MOUT training.

- The medical aidmen must be prepared to support their combat platoons for extended periods of time without

contact with the battalion aid station and the treatment squad. They must be given an adequate stockpile of medical supplies, along with a good dose of self-confidence, and they must be properly assimilated into the platoons to which they are assigned.

- In the platoons, the aidmen have to be trained to move in and around buildings as skillfully as the infantrymen. And they should be trained in such procedures as moving casualties from underground locations or from upper floors.

- The infantry soldiers must also be trained in the techniques of moving casualties in, over, and around obstacles. Because rubble will probably limit the use of ambulances, casualties may have to be man-carried long distances over difficult terrain to casualty collecting points.

- Units must develop methods of locating their wounded soldiers. And, so that they can properly support their dispersed units, the medical aidmen must understand the unit's standard procedures for moving down streets, entering



In urban operations, caring for casualties is significantly different from performing the same tasks in other types of terrain.



buildings, and going between rooms.

- If MOUT operations continue for any period of time, the infantry units must refine their expectations concerning the number and types of casualties they will encounter. This will be a team effort involving both the infantry and the medical leaders, and it will improve the medical platoon's chances of providing the best possible medical care to the infantry soldiers of the supported unit.

- Both the infantry and the medical units must always be ready and willing

to innovate. Every MOUT environment will be different, and medical support will have to be adjusted to meet the changing situation.

- Finally, all leaders should read *The Battle for Hue*, by Keith Nolan, a Vietnam war account of operations in a most difficult MOUT environment.

We know one thing for certain—in a future war we will conduct operations on urbanized terrain. Our infantry soldiers will be called on to fight in small teams scattered in buildings and rooms and will

meet the opposing force at almost every turn. Some will become casualties.

Accordingly, our MOUT training programs must consider these points if we expect good health service support to be available to those infantrymen when and where they need it.

Captain David A. Rubenstein, a Medical Service Corps officer, is an instructor at the Academy of Health Sciences at Fort Sam Houston. Among other assignments, he has served as a medical platoon leader with the 1st Battalion, 7th Infantry, and as S-2/S-3 of the 3d Medical Battalion, 3d Infantry Division in Europe.

The British PT Corps

CAPTAIN KELLY E. DeWITT

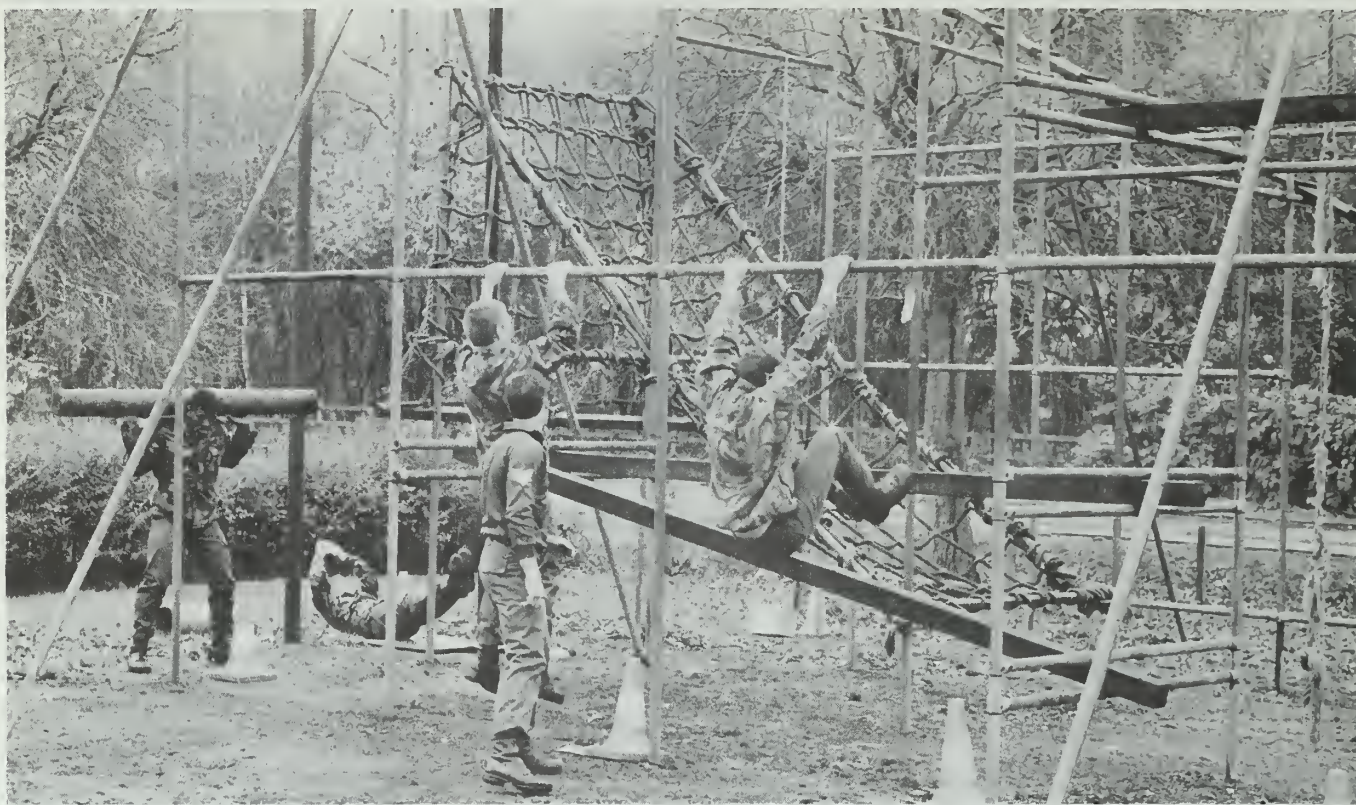
The United States Army expends a considerable amount of resources in training people to conduct preventive maintenance on its equipment. But does it expend a comparable amount on training personnel to maintain the health and physical conditioning of its soldiers? Probably not.

By contrast, the British Army has made an investment in and a commitment to the

physical conditioning of its soldiers by establishing a permanently staffed Physical Training Corps—a single organization that is totally responsible for coordinating the Army's physical training efforts. This method has proved highly effective in maintaining the health and physical conditioning of British soldiers, and it may be beneficial for us to take a look at that Corps and how it works.

The roots of the PT Corps go back to 1860 when 12 noncommissioned officers drawn from various units were sent to Oxford University for a course at the Gymnastic School. The first graduates, called "the Apostles," formed the nucleus of the Army Gymnastic Staff, which by the beginning of World War I numbered 172.

During the war, 2,000 officers and



Students in the Assistant Instructors Course being instructed in methods of conducting circuit training.

22,500 NCOs trained as assistant instructors, and the best of these were taken to reinforce the Army Gymnastic Staff. The Staff also trained Allied personnel, including U.S. Army officers, as instructors at its school in France, and in 1917 assisted with the physical training of U.S. Army units in the United States.

After World War I, the number of people on the staff decreased along with the demobilization of the rest of the Army. But in 1922, a hygiene specialist from the Royal Army Medical Corps was assigned to the PT School, which put it in close touch with the medical aspects of physical training.

Fourteen years later, in 1936, when an ever-increasing number of recruits failed to meet the entry level standards for enlistment in the Regular Army, the Recruits' Physical Development Depot was formed to provide the specialized training needed to bring them up to the desired standard. The program included a minimum of military training and a maximum of physical training.

The threat of war in 1939 resulted in the introduction of "National Service," and once again the PT staff instructor requirements increased. Later, after the British experience at Dunkirk in 1940, it

was decided that the PT Staff should be formed into a combatant corps; on 16 September 1940, it was redesignated the Army Physical Training Corps.

Swimming now became an important part of the training; soldiers were taught to swim in full combat gear and to ferry their equipment across water obstacles, training that came to be called "battle swimming." Competitive games and recreation, which were considered valuable in instilling the "warrior spirit," also became important augmentations to the physical conditioning on the troop transports to the Middle East.

In 1942, the motto "Fighting Fit and Fit to Fight" was adopted, and the Corps lived by these words during the intensive training periods that eventually culminated in the opening of a second front in France in June 1944. Toughening courses—climbing, scaling walls, endurance training, and close combat—were conducted for officers and NCOs.

By the end of the war, more than 22,000 individuals had attended physical training instructor courses at the Army School of Physical Training at Aldershot. Thousands more had received training through the various physical training schools established by the major com-

mands. More than 3,000 PT Corps instructors served in every theater of operation, and they emerged with the distinguished reputation that the Corps continues to carry with justifiable pride.

Today, the Corps consists of 41 officers and 360 NCOs. To place these numbers and the effectiveness of the Corps in perspective, however, it is necessary to emphasize that the British Army is only 148,500 strong.

Officers are selected from within the Corps and commissioned from the ranks. A soldier cannot directly enter the Army PT Corps. He must first serve a tour with a regiment or another corps after his initial military training, complete the Assistant Instructors Course, gain unit experience as an assistant, and complete the Advanced Course and the Probationers Course. Only then is he allowed to transfer into the Army Physical Training Corps. He enters as a sergeant and is assigned to a position at the Army Schools of Physical Training, training centers, military schools, or battalions.

In addition to unit assignments, members of the PT Corps can be assigned to staff positions at corps and division level or at Adventurous Training Centers. Some Corps instructors are assigned to

the Joint Services Medical Rehabilitation Unit to conduct remedial exercises and physical therapy.

The tasks performed by the Corps instructors assigned to battalions include:

- Organizing and supervising physical training classes.
- Helping the unit fitness officer select and train potential assistant instructors.
- Coaching and officiating in league soccer, track and field events, basketball, and boxing.
- Teaching elementary fencing, judo, and swimming.
- Caring for the gymnasium and the sports equipment.

Although these Physical Training Corps instructors provide the overall coordination, organization, and training for physical activities, the assistant instructors at unit level are directly responsible for implementing and conducting the commander's physical training program. Each company needs at least one instructor but is encouraged to have more, thereby reducing the size of the groups to be supervised and taking care of such other commitments as leave, schools, and field exercises.

A company commander selects soldiers to serve as assistant instructors on the basis of their demonstrated potential ability to supervise, administer and instruct in various forms of physical and recreational training. Candidates must have attained the rank of lance corporal and must have leadership qualities and the ability to instill confidence in individuals. Obviously, they must be in excellent physical condition themselves, which includes the ability to pass the military swim test.

These assistant instructors are trained at the Army School of Physical Training in the six-week Assistant Instructors Course. It includes physical training instruction practice, an introduction to anatomy and physiology, instruction on the proper performance measures in conducting the British Army Physical Training Tests, and the organization and supervision of major and minor sports and recreational activities. This last section includes volleyball, soccer, gymnastics, indoor games, wrestling, swimming, relays, obstacle courses, tugs of war, cross-country races, and log races. It teaches not only how to conduct

the events but also how to organize various types of competitive activities.

After graduation, these assistant PT instructors return to their companies to apply their instructor skills and to gain experience, normally under the supervision of the Army Physical Training instructor assigned to the battalion.

These assistant instructors are not members of the PT Corps but are assigned to their companies, where they perform physical training instruction in addition to their normally assigned duties. (Only the personnel assigned to the Physical Training Corps perform PT duties full time.) About 600 assistant instructors are trained annually with 100 of them assigned to reserve units. About 2,000 trained assistant instructors of all ranks are serving in units throughout the active Army.

The Assistant Instructors Course is only the first step on the Physical Training Corps ladder. Although most graduates of the course continue serving in their initial entry occupations, those who demonstrate an aptitude and a desire to advance their skills may compete for entry into the Physical Training Corps.



Members of the 1st Battalion, The Duke of Wellington Regiment, conducting "Battle PT"—log drills with competition.

After about two years of experience as assistant instructors, some are selected to attend the Advanced Physical Training Instructors Course. They must be corporals who are eligible for promotion to sergeant.

The three-month Advanced Course covers a more in-depth curriculum on PT instruction, theory, anatomy, and physiology, including sports injuries. It also includes an increased emphasis on recreational subjects such as rock climbing, canoeing, and mountaineering skills.

After completing the Advanced Course, and if recommended for promotion to sergeant, they are selected to attend the six-month long Probationers Course, which follows the same subject matter but with higher levels of qualification.

After completing this required training, an individual soldier is transferred to the Physical Training Corps and becomes available for assignment to various positions within the Corps.

The Physical Training Corps also conducts a wide variety of other courses in support of both fitness and recreational training, and the School of Physical Training conducts a training management course for unit fitness officers. This course prepares officers to develop, implement, and assess physical training programs for their own units.

In the British Army, recreational activities are considered an important part of any well-balanced PT program. Team sports are stressed, and courses are conducted to teach or develop individual skills. Activities include basketball, boxing, swimming, judo, soccer, fencing, first aid, orienteering, squash, rugby, gymnastics, volleyball, and arrest and restraint techniques. Most recreational courses are designed to teach beginners the fundamentals of an activity. Courses for coaches and officials for most of the activities are also conducted.

The British Army also conducts what it calls "adventurous training," which is defined as "a form of outdoor activity requiring participation in challenging pursuits which contain a risk to life and limb." The experiences from this type of training instill in the soldiers those qualities and characteristics that are vital to developing leadership and promoting

the "warrior spirit." Just as a confidence course provides excitement, challenge, and control of fears, so does well-organized and worthwhile adventurous training, but on a more permanent basis.

Since 1971, the adventurous training efforts of all services in Great Britain have been centralized by the Joint Services Adventurous Training Scheme. The purpose of the program is to expose service members to dangers, hardships, and challenges designed to develop in them the qualities of fitness, self-reliance, physical and moral courage, initiative, endurance, and independence.

The Physical Training Corps is responsible for all matters relating to adventurous training with the Army. This includes providing technical advice to commanders at all levels and advising unit adventurous training officers and helping them conduct adventurous training exercises.

ADVENTUROUS TRAINING

There are physical training instructors at ten Adventurous Training Centers, which provide adventurous training for both individuals and units. The primary aim of the courses at the center is to produce qualified unit instructors who can conduct their own unit activities safely and professionally. Although some activities are conducted almost entirely at the centers, such as gliding and free-fall parachuting, the aim is to conduct as much of the training in the units as possible, using unit instructors and leaders. One method of instruction is to let units use the centers' facilities to conduct activities under the command of their own officers and NCOs but with the assistance of the training center staff.

Each unit designates an adventurous training officer, who should have adventurous training experience and who should have attended a commanders and staff officers course at a center. An adventurous training officer should have a small cadre of officers and NCOs within his unit who are qualified to organize, lead, and conduct such activities as rock climbing, canoeing, caving, downhill skiing, cross-country skiing, sailing, free-fall parachuting, underwater

diving, gliding, and team expeditions.

Team expeditions are used to cover a variety of adventurous training activities throughout the world. Expeditions include journeys to remote areas of the world and various types of environment; three recent examples were traversing the Canadian Rockies on horseback; following the exact route taken by Cortes in his conquest of Mexico; and trekking from the Atlas Mountains to the Sahara with the aid of camels.

The demand for adventurous training has steadily increased. In 1980-1981, 24,475 soldiers took part in 889 expeditions in 34 countries; in 1985-1986 this number increased to 31,270 soldiers on 1,203 expeditions in 61 countries.

All Physical Training Corps instructors receive adventurous training during their advanced training for acceptance into the Physical Training Corps. These instructors are then capable of conducting various adventure training activities in centers or advising the unit commander on adventurous training.

From this brief history of the British Physical Training Corps, it is clear that the concept of using dedicated personnel to instruct, supervise, and conduct physical training is not a new or revolutionary idea. The importance the British Army has placed on its PT Corps structure and the results of the Corps' endeavors are well documented throughout its 127 years of existence. Some of the same ideas and concepts are now being practiced in the U.S. Army but through a variety of agencies and programs rather than a single organization such as the British Army Physical Training Corps.

The U.S. Army continues to move into bold new concepts and sophisticated weapon systems, but the physical training requirements of the American soldier remain constant and complex. Modern equipment will always become obsolete and need to be replaced, but the physical conditioning requirements of the Army will remain unchanged. We must always be "fighting fit and fit to fight."

Captain Kelly E. DeWitt is the U.S. Army Military Police exchange officer with the United Kingdom. He is assigned to the 158 Provost Company, Royal Military Police, as the operations officer, Tactical Support Element to the 1st (British) Infantry Brigade of the United Kingdom Mobile Force.

ENLISTED CAREER NOTES



ATTEND COLLEGE FULL TIME

Infantrymen should be aware of a new re-enlistment option that will give them an opportunity to attend college or technical or trade school on a full-time basis for up to two years.

The new educational option is now available to qualifying first-term and mid-career soldiers who re-enlist for four, five, or six years in all MOSs. Soldiers enrolled in a program that will result in a baccalaureate degree are limited to two years of schooling; other soldiers are limited to one year.

To receive 12 months or less of schooling, a soldier must re-enlist for at least four years; to receive 12-18 months of schooling, he must re-enlist for five years; and to receive 18-24 months, 6 years.

This option supports the Servicemembers Opportunity College Associate Degree (SOCAD) and Bachelor Degree for Soldiers (BDES) Programs by providing opportunities for soldiers to complete the programs' residence requirements.

Soldiers who are selected to participate must agree to pay all expenses incurred in connection with the schooling, including tuition, fees, and books. Although tuition assistance may not be used for this purpose, the GI Bill, other accrued educational benefits or grants, and scholarships obtained by the soldier may be used. Soldiers on two-year enlistments must complete their enlistments before being eligible to draw on their Army College Fund accounts.

Further details are available from local education offices.

operations forces. In support of these efforts, MILPERCEN is looking for high-quality enlisted soldiers to enter career management field (CMF) 18, Special Operations.

Because of the emphasis on Special Forces, pre-printed application packets are now available from the CMF 18 recruiting team at the U.S. Army John F. Kennedy Special Warfare Center. Interested soldiers may write Commander USAJFK-SWC, ATTN: ATSU-SP-R, Fort Bragg, NC 28307-5000, or call AUTOVON 239-1818/5083, commercial (919) 396-1818/5083.

Since Special Operations is a non-accession CMF, all openings are filled by soldiers already in the Army who apply for reclassification from their original CMFs.

To be eligible, a soldier must meet the following criteria:

- Be a specialist four or higher for MOS 18D (special operations medical sergeant); or be a sergeant or higher for special operations MOSs 18B (weapons sergeant), 18C (engineer sergeant), or 18E (communications sergeant).

- Be a Primary Leadership Development Course graduate.

- Have a General Test (GT) score of 110 or higher.

- Complete the swim test.

- Pass the Army Physical Fitness Test with 17-21 age group standards.

- Not be on levy for overseas assignment.

For more information on CMF 18 and the types of assignment available to Special Forces soldiers, refer to AR 614-200, or contact MSG Hennix, MILPERCEN's CMF 18 professional development NCO, at AUTOVON 221-8340; commercial (202) 325-8340.

their chances for promotion is to make sure their correct noncommissioned officer education system (NCOES) codes are on their records.

Recent Army policy changes have made NCO education sequential, progressive, and mandatory and have linked some levels of education to promotion. Because of these changes, NCO education codes on the SIDPERS data base and the Enlisted Master File (EMF) have become more important.

Some of the codes now in use have become meaningless as the Enlisted Personnel Management System has evolved over the years, and soldiers' records often contain codes that do not accurately reflect their highest professional development training.

The use of standard codes should correct the lack of good information about NCOES. These codes will ensure that soldiers are considered for promotion and NCOES courses at appropriate times.

The only valid NCO education codes are these:

A—Sergeant Major Academy graduate (resident and nonresident).

C—Sergeant Major Academy nongraduate (resident and nonresident)—was enrolled in but failed to complete one of these programs.

D—Sergeant Major Academy declinee (resident and nonresident).

F—Sergeant Major Academy selectee (resident and nonresident).

M—Advanced NCO Course nongraduate (resident only)—was enrolled in this program but failed to complete it.

S—Advanced NCO Course graduate (resident and nonresident).

T—Advanced NCO Course selectee (resident only).

W—Basic NCO Course graduate—includes all basic NCO courses and basic technical courses.

2—Primary NCO Course graduate—includes graduates of Primary Leadership, Primary NCO, and Primary

SOLDIERS NEEDED IN CMF 18

The recent approval of Special Forces as a separate career branch reinforces the Army's efforts to strengthen its special

NCOES CODES ON RECORDS

One way for infantrymen to improve

Leadership Development Courses conducted at NCO Academies; and resident NCO Academy graduates before 1 October 1976.

0—Has not completed any level of NCOES course and codes T, M, F, D, or C do not apply.

Since these codes were announced late last year all invalid NCO education codes should have been changed by 1 March. But NCOs need to check their records to see that the right codes are listed. And whenever their NCOES level changes, they need to make sure their codes are changed too.

Personnel records and SIDPERS clerks also need to make sure the records they handle have correct NCO education codes, because these codes will be an item of interest for Personnel Management Assistance System team visits.

LETTERS TO PROMOTION BOARDS

A noncommissioned officer who writes a letter to a promotion board may be wasting his time if he does not follow some simple rules.

Any NCO who is in the zone of consideration for promotion or school and wants to communicate with a selection board must prepare a letter and address it to the president of the specific board, c/o Commander, USAEREC, ATTN: PCRE-BA, Ft. Benjamin Harrison, IN 46249-5301.

The letter may not come from or be endorsed by a third party, and it may not contain information that is critical of or reflects on the character, conduct, or motives of any individual. If it does, it will not be seen by the board.

Any documents enclosed with the letter will not be used to update the soldier's official military personnel file, since the letter and all enclosures to it become a permanent part of the board's records. Unauthorized enclosures such as Individual Soldier Reports, Enlisted Evaluation Reports, and any third-party written communications (such as letters of recommendation or reference) are withdrawn.

Some authorized enclosures include

awards, citations, diplomas, transcripts, training certificates, civilian community awards, athletic achievements, and official photographs. An official photograph that is forwarded with a letter will be withdrawn and processed through normal channels to update the soldier's current photographic file.

Guides to preparing a proper letter are in paragraph 7-38c, AR 600-200, and in the MILPERCEN message announcing the zone of consideration for a particular board. Personnel service companies should have copies of both documents.

DRILL SERGEANT TOURS

Recent changes in permanent-change-of-station policy have not altered or extended tour lengths for drill sergeants.

Drill sergeant duty is still a four-year tour with the option to request an extension or an additional 12 months, but PCS changes *have* affected how long a drill sergeant will be assigned to the same location.

Soldiers completing two- or three-year drill sergeant tours should expect to remain at their current installations, filling other positions once their drill sergeant tours are over, until they have completed 48 months on station.

Reassignment overseas is an exception to PCS policy and does not require 48 months on station.

AR 614-200, paragraph 8-22(b), which provides assignment policy for drill sergeants who have completed three-year tours, is being reviewed, however, and commanders will be notified once this policy is clarified.

EOA DUTY

Infantrymen with previous experience as platoon sergeants or first sergeants who are interested in serving as Equal Opportunity Advisors (EOAs) should contact their career advisors at the Infantry Assignment Branch.

EOA duty is a single-tour detail with duties in SQI "Q," limited to senior NCOs (SFC/PSG and above), with soldiers being selected by MILPERCEN

from all CMFs. A single tour for most EOAs is at brigade and higher levels.

This is a unique and sensitive duty. It is demanding, and its successful performance reflects superior leadership, communication, and administrative skill. NCOs selected for this duty are screened for previous experience as platoon sergeants or first sergeants.

Promotion boards are briefed about the duties of EOAs and are aware that there are many soldiers who may not have had an opportunity for recent experience in leadership positions such as platoon or first sergeants.

Soldiers nominated for this duty will be scheduled to attend the 16-week EOA Course held at the Defense Equal Opportunity Management Institute at Patrick Air Force Base, Florida. Soldiers who successfully complete the course will proceed to their gaining commands for principal duty as Equal Opportunity Advisors.

The telephone numbers to call at Infantry Assignment Branch are AUTOVON 221-8056; commercial (202) 325-8056.

EER APPEALS

Infantrymen are urged to make full use of the Army's appeal system when they believe they have been rated inaccurately or unfairly.

AR 623-205, Chapter 4, provides guidelines for preparing an appeal, and Appendix G of that regulation has been added recently to provide more definitive guidance. Staff judge advocate offices and local personnel service centers have people who can also help.

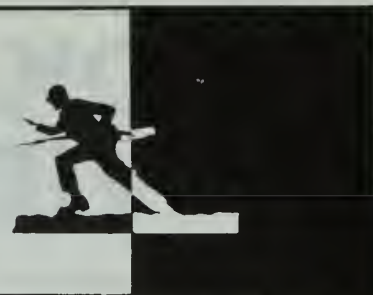
For additional information concerning appeals:

- Active duty NCOs should write to Commander, U.S. Army Enlisted Records and Evaluation Center, ATTN: PCRE-RE-A, Ft. Benjamin Harrison, IN 46249-5301.

- Army Reserve NCOs should write U.S. Army Reserve Personnel Center, ATTN: DARP-PRE-A, 9700 Page Blvd., St. Louis, MO 63132-5200.

- Army National Guard NCOs should write Chief, National Guard Bureau, ATTN: NGB-ARP-E, Washington, DC 20310-2500.

OFFICERS CAREER NOTES



IOAC HOUSING PLANS

Forty sets of on-post quarters are now being set aside at Fort Benning for each Infantry Officer Advanced Course class. Each officer's welcome packet will include a letter from 1st Battalion, The School Brigade, on the housing policy, a questionnaire to be filled out by the student, floor plans of the on-post quarters, and a self-addressed envelope in which to return the questionnaire.

The goal is to notify students 45 days in advance as to whether they will be assigned on-post quarters or will have to live off post.

Any student who does not receive a welcome packet or a questionnaire 60 days before his IOAC class start date should contact 1st Battalion at AUTO-VON 835-1962/1043; commercial (404) 545-1962/1043.

CGSC SELECTION BOARD

A Department of the Army board will convene on 1 September to consider officers managed by the Officer Personnel Management Directorate for selection to attend a resident command and staff college in academic year 1988-89.

To be eligible for consideration, an officer must:

- Be a promotable captain, major, promotable major, or lieutenant colonel on the board's convening date.
- Have completed fewer than 14 years (168 months) of active federal commissioned service on 30 September 1987.
- Be a graduate of an officer advanced course or the Combined Arms and Services Staff School (CAS³), or be a Phase I CAS³ enrollee or graduate. (Officers who have completed the nonresident Command and General Staff College program are eligible for selection to attend a resident course.)
- Not have attended or declined to

attend a U.S. command and staff college or an equated foreign staff college in residence.

Reserve Component officers on extended active duty who are otherwise eligible will remain eligible for command and staff college consideration if they will not reach their mandatory release dates from active duty, or retire, before the board convenes.

Evaluation reports must arrive at MILPERCEN's Evaluation Reports Branch (DAPC-MSE-R) by 1 September. Only originals will be accepted, because machine-reproduced and electronically transmitted copies cannot be microfiche.

Eligible officers may write letters to the board on matters they believe are important to the consideration of their records. Letters should be addressed to President, 1987 Command and Staff College Selection Board, ATTN: DAPC-MSB, 200 Stovall St., Alexandria, VA 22332-0400. Letters must arrive by 1 September and must include complete social security numbers.

Letters to the board president should not be used to update Official Military Personnel Files, because letters and enclosures become part of the board record and are *not* filed in OMPFs.

Officers who are eligible for consideration should review their records to make sure they are correct and up to date. Each officer's record should contain a current report of physical examination and a photograph. The selection board will review photos in hard copy.

Officers can get copies of their Official Military Personnel Files and Officer Record Briefs at no cost by writing to Commander, USA MILPERCEN, ATTN: DAPC-MSR-S, 200 Stovall St., Alexandria, VA 22332-0400. Social security number and current mailing address must be included.

MILPERCEN has established a special processing unit to handle OMPF updates for eligible officers. OMPF additions

and corrections should be submitted as soon as possible to Commander, USA MILPERCEN, ATTN: DAPC-MSR-S (Special Processing Unit), CSC Board, 200 Stovall St., Alexandria, VA 22332-0400.

AWCCSC APPLICATIONS

Infantry officers should be aware that the 1987 Senior Service College Selection Board will meet 21 July to select officers to attend various senior service colleges and also to identify officers who are eligible to apply for the nonresident Army War College Corresponding Studies Course (AWCCSC).

Officers who are interested in taking the AWCCSC must apply to their assignment managers by 15 December 1987. Chain of command endorsement is not required.

To be eligible for selection, an officer must:

- Have completed at least 16 years (192 months) but not more than 23 years (276 months) of active federal commissioned service as of 1 October 1988.
- Hold the rank of lieutenant colonel or colonel on the board's convening date.
- Be a graduate of or have credit for completion of a command and staff level college.
- Not have attended, received credit for attendance, or declined to attend in residence a senior service college or an equated foreign school as specified in AR 351-1, Individual Military Education and Training.

Reserve Component officers on the active duty list who are otherwise eligible will remain eligible for consideration as long as they will not reach their mandatory release from active duty dates before the board convenes.

BOOK REVIEWS



In our last issue we mentioned a few of the many books we had recently received in the field of U.S. military history. Here are more:

- **A BATTLEFIELD ATLAS OF THE AMERICAN REVOLUTION.** By Craig L. Symonds. Cartography by William J. Clipson (Nautical and Aviation Publishing Company, 1986. 112 Pages. \$15.95). Similar in design and layout to the Civil War atlas prepared several years ago by the same two men, this atlas of the Revolutionary War contains 41 full-page, two-color maps and an equal number of clear, concise, one-page battle narratives grouped into four major parts. Each part is preceded by an introductory essay that draws together the succeeding battle narratives. There is also a brief epilogue and suggestions for further reading. This is an excellent introduction to the major military events of the Revolution, and a most useful reference.

- **CIVIL WAR GENERALS.** Compiled by James Spencer (Greenwood Press, 1986. 333 Pages. \$39.95). This book contains a mass of biographical data about 961 general officers who served in the Union and Confederate armies during the Civil War. The generals are grouped in various ways—by rank, by first names, by middle names, by colleges, and by work after the war, among others. A final section has a brief biography of each man, while an index is most useful in tracking the officers through the 16 different categories. In his introduction, the compiler, who recently retired from a career in law enforcement, explains the whys and hows of his compilation.

- **GREAT CIVIL WAR HEROES AND THEIR BATTLES.** Edited and with an introduction by Walton Rawls (Abbeville Press, 1985. 304 Pages). Most of the material that forms the core of this striking book was first printed, in one form or another, in the late 19th century in two books that are hard to find today—**THE HEROES OF THE CIVIL**

WAR and GENERALS AND BATTLES OF THE CIVIL WAR. With only minor exceptions, the biographies of 50 of the leading military and naval figures of the war and the monochrome illustrations with their captions are reprinted as they were originally published. These have been supplemented with the famous Kurz and Allison battle series collection, a few Currier and Ives prints, and period engravings of the uniforms, insignia, and major weapons worn and used during the war years. Civil War buffs will find this book to be of great interest.

- **A GUIDE TO THE SOURCES OF UNITED STATES MILITARY HISTORY, SUPPLEMENT TWO.** Edited by Robin Higham and Donald J. Mrozek (Shoe String Press, 1986. 332 Pages. \$42.50). This volume nicely complements the first two in the series—the original guide, published in 1975, and the first supplement, published in 1981. This new supplement concentrates on publications released between 1978 and 1983, and most of the essays in it were prepared by the same authors who had contributed to the first supplement. Each essay contains a section titled “For Further Research” in which the essayist suggests areas of interest or particular issues deemed worthy of further study by military historians. Although the series does not include periodical literature, it is an invaluable reference tool. The military professional should become familiar with it.

- **THE TRIPLE NICKELS: AMERICA'S FIRST ALL-BLACK PARATROOP UNIT.** By Bradley Biggs (Shoe String Press, 1986. 92 Pages. \$15.00). On 4 March 1944, six black officers and 16 black enlisted men were awarded jump wings after parachute qualification training at Fort Benning. They were then members of the 555th Test Platoon, the first all-black paratroop unit in the United States Army. Eventually, the unit grew into Company A, 555th Parachute Infantry Battalion and was moved to Camp

Mackall, North Carolina. There the 555th Parachute Infantry Battalion was created. The unit was not sent overseas during the war but was used on the west coast to search for and dispose of Japanese balloon-bombs and to fight forest fires. The author was a charter member of the unit and served with it throughout the war and during the years immediately following when it was taken into the 82d Airborne Division. He tells a good story, and proves that the 555th deserves to be recognized for what it was and for what it did.

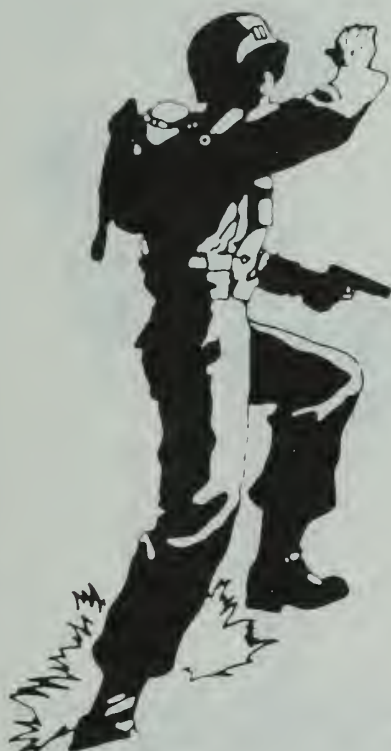
- **THE LOS BANOS RAID.** By E.M. Flanagan, Jr. (Presidio, 1986. 276 Pages. \$17.95). The author presents a straightforward account of the operation conducted by the 11th U.S. Airborne Division in the Philippines in late February 1945 to free the more than 2,000 civilian internees who were being held in a Japanese prisoner-of-war camp at Los Banos, a small village southeast of Manila on the edge of a large lake. As finally carried out, the operation involved a jump by one company of a parachute infantry battalion just outside the camp, a crossing of the lake in amphibious vehicles by the remainder of the battalion to join the jumpers, and support from various small guerrilla forces at the camp site itself. The author was a member of the division at the time but did not take part in this particular operation. His pride in the way the division accomplished its mission is quite evident, however, although that pride is somewhat dampened because no one thought of leaving a force behind to protect the Filipino villagers who lived in and around Los Banos from Japanese retaliation. That retaliation was swift and brutal and more than 1,000 innocent men, women, and children were killed by Japanese soldiers who arrived in the area after the U.S. force and internees had recrossed the lake to safety. No one has ever clearly established who was at fault, although the author is certain the division did all it was supposed

to do and would have left a force behind if it had been told to do so.

• **EAST OF CHOSIN: ENTRAPMENT AND BREAKOUT, 1950.** By Roy E. Appleman (Texas A&M University Press, 1987. 400 Pages. \$22.50). This is one of the first books in the publisher's new Military History series and it is a good one. As we have mentioned several times, the Korean War is little known and understood by most of our infantrymen. It is truly a forgotten war, although more is being written about it today than at any time in the recent past. This is most unfortunate because the war cost the Army dearly. In 37 months of fighting, Army casualties totaled 27,704 dead, 77,596 wounded, and 4,658 missing or captured, the bulk of which occurred during the war's first year. As with the Vietnam War, the Korean War left some deep scars, many of which have not been completely healed by the passage of the years. Roy Appleman, the author of this book and also of a volume in the Army's official Korean War series, accounts for several thousand of those casualties in his gripping story of the destruction of the 7th Infantry Division's 31st Regimental Combat Team east of the Chosin Reservoir between 27 November and 2 December 1950. Perhaps better known as Task Force Faith (after Lieutenant Colonel Don C. Faith, Jr.), the team was a mixed bag of U.S. infantrymen, field artillerymen, and air defense artillerymen, a number of supporting Korean soldiers (KATUSAs), and one Marine tactical air control party. While the 1st Marine Division west of the Reservoir held together and fought off almost continual Chinese Communist Force (CCF) attacks and thereby added a lustrous page to its history, the 31st RCT gradually disintegrated under heavy blows struck by the 80th CCF Division. Parts of the story have been told before, but not in this detail. Why did this happen? Appleman answers as best he can, based on scores of individual interviews and research in the official records. Every infantryman should study this book; it offers many lessons.

• **COUNTERATTACK ON THE NAKTONG, 1950.** By William Glenn Robertson (Leavenworth Papers Number 13, Combat Studies Institute. S/N 008-

020-01079-1, Superintendent of Documents, 1985. 156 Pages. \$7.00, Soft-bound). Less than four months before the action described by Appleman, another U.S. Infantry unit—the 24th Infantry Division (or what was left of it)—stood in defense of the Naktong River line in South Korea and fought what has become known as the First Battle of the Naktong Bulge. Basing his study primarily on official documents, the author, a member of the Combat Studies Institute at Fort Leavenworth, concentrates his attention on the extensive series of counterattacks



conducted by the 24th Division to eliminate North Korean penetrations of its forward positions and on the doctrinal foundation that supported them. In his last chapter he compares the actual conduct of the counterattacks with the published doctrine and suggests certain tentative conclusions. At the same time, his study raises other important issues today's infantrymen should be thinking about—the employment of light infantry divisions, the potential responses available to encircled forces, the use of ad hoc forces to protect a division's rear area, and the lack of existing doctrine for skeletonized units.

• **COMBAT ART OF THE VIETNAM WAR.** Edited by Joseph F. Anzen-

berger, Jr. (McFarland, 1986. 160 Pages. \$31.45). During the Vietnam War hundreds of artists, both in and out of uniform, sketched, painted, and photographed the war as they saw it. Literally thousands of graphic representations of the United States at war were made. Unfortunately, that huge body of work—the Army's collection alone totals about 2,000 pieces and has been valued at \$7 million—is little known, and its exposure to the general public has never been fully realized. This book is an attempt to rectify that oversight in that it reproduces some 125 representative works organized into selected categories—combat action, support operations, the air war, portraits, POWs, humor, and the aftermath. A number of the reproductions are in four colors; most are black-and-white; a few are complemented with the artists' first-hand accounts. This is an excellent piece of work that goes nicely with the Army's own recently published photographic history of the Vietnam War, *IMAGES OF A LENGTHY WAR*, which we mentioned in our last issue.

• **PACIFIC STARS AND STRIPES: VIETNAM WAR FRONT PAGES.** Edited by Hal Drake (Hugh Lauter Levin Associates, 1986. 224 Pages. \$19.95). This book contains front pages from 215 of the most memorable editions of the *Pacific Stars and Stripes*; they cover events in Vietnam from the fall of Dien Bien Phu in 1954 to the fall of Saigon in 1975. The largest number of front pages come from the years 1962, 1965, 1968, 1970, and 1972. It is a fascinating book to look through; for the individual who lived through the times, it will bring back an awful lot of memories. For others, it will serve as a valuable reference work as well as an important historical document.

• **THE LONGMAN HISTORY OF THE UNITED STATES OF AMERICA.** By Hugh Brogan (William Morrow, 1986. 740 Pages. \$25.00). While this is not strictly military history, we thought you should know about it, for it is the first new and comprehensive history of the United States published in more than 20 years. The author is British and a lecturer in history at the University of Essex. He has specialized in the study of U.S. history and politics. He has

a nice easy-to-read style, is not afraid to voice his opinion about events or people, but generally remains even-handed in his treatment. A few of his statements will mean more to a British reader, but these few should not cause an American reader to throw his hands up in despair. In this year in which we celebrate the drafting of our Constitution, it seems appropriate to have at hand a history of our country, particularly one that is as pleasant to read as this one.

Here are a number of other books you should know about:

EISENHOWER AT WAR, 1943-1945. By David Eisenhower (Random House, 1986. 977 Pages. \$29.95). Reviewed by Doctor Charles E. White, USAIS Historian.

Was General Dwight Eisenhower responsible for allowing Soviet forces to advance too far to the west, thereby allowing those forces to enslave much of Europe? Forty years after the defeat of Hitler's Germany, the debate still rages. In this richly detailed biography, David Eisenhower answers his grandfather's critics.

What most people fail to remember is the primacy of politics in 1945. As David Eisenhower correctly states, to deny Berlin to the Soviets was not General Eisenhower's decision to make. President Roosevelt and Prime Minister Churchill, in effect, had already conceded Berlin and much of eastern Europe as well to the Soviets. This is the subtle reality that most critics of General Eisenhower conveniently ignore.

Fortunately, the author does not waste too much time answering the critics. Rather, he offers a fascinating study of the war in Europe as seen from the Supreme Commander's perspective. The reader is constantly at General Eisenhower's side, discovering what he knew and, more importantly, when he knew it. This is truly a soldier's story. General Eisenhower's personality comes alive as the reader discovers the complexities of allied command, the dynamics of coalition warfare, and the politics of military decision-making.

While many will continue to debate the soundness of General Eisenhower's military strategy, the political disaster that followed the surrender of Germany was

clearly beyond his control.

A PORTRAIT OF THE ISRAELI SOLDIER. By Reuven Gal (Greenwood Press, 1986. 257 Pages. \$39.95). Reviewed by Lieutenant David B. Des Roches, United States Army.

Few soldiers are as highly thought of as the Israeli soldiers. To many, Israeli soldiers have achieved an almost mythical prominence as they have repeatedly routed the combined armies of other Middle East powers.



While virtually everyone has heard of or can tell some story about the lives, the training, and the accomplishments of Israeli soldiers, few can do so with the authority of Reuven Gal. A veteran of 23 years of service in the Israeli Defense Forces (IDF), Gal has spent five years as the IDF's chief psychologist. Thus, his book is an insider's view but written in a style that appeals to and can be understood by any interested outsider.

The portrait that Gal paints is of a soldier who is the product of many complex and constantly changing factors. Some of these are attributable to training and command influence and may be duplicated in other countries. But many are unique factors found only in the state of Israel.

The manner in which the Israeli soldier interacts with his society is one of the

most interesting sections of the book. Gal writes at length of the strong societal pressures that force young Israelis to look forward to conscription and to volunteer eagerly for combat units. He compares the common Western adolescent who tries to find himself through counter-culture behavior with the Israeli, who finds himself through military service. Gal concludes that this attitude is probably a result of Israel's unique history and may not be easily duplicated elsewhere.

The book may be arcane on some points, particularly when the author uses a detailed statistical analysis that may not mean much to the average reader, but these flaws are far outweighed by the remainder, which is a unique insider's view of the Israeli soldier.

PAVN: PEOPLE'S ARMY OF VIETNAM. By Douglas Pike (Presidio Press, 1986. 384 Pages. \$22.50). Reviewed by Doctor Joe P. Dunn, Converse College.

No Western authority knows more about "the enemy" in the Vietnam War than does Douglas Pike. His *Viet Cong* (1966) and follow-up studies of the southern insurgents are the classics on the subject. His *History of the Vietnamese Communist Party* (1978) is a useful overview. And this latest volume about the military force that won the war against the United States is already another classic.

Under the leadership of Ho Chi Minh and Vo Nguyen Giap, the PAVN grew from 34 fighters in the summer of 1945 to 650,000 in 1975 and to between three and four million today, including regulars, reservists, and paramilitary forces. It is the third largest standing army in the world.

In this fascinating study of "the Prussians of Asia," Pike treats the growth, history, organization and administration, leadership, ideology, strategy, and role in society of this behemoth. His most important contribution is the explanation of the concept of *dau tranh*, the political and military strategy that the Vietnamese employed successfully against three world powers, and for which, Pike argues, "there is no known proven counter-

strategy." Several valuable appendixes, including a roster of all PAVN general officers and lengthy biographical essays on the senior generals, are extremely useful.

This excellent book must be read by all serious students of the Vietnam War, but the intelligent layman will find it interesting and informative as well.

THE NEW BATTLEFIELD: THE UNITED STATES AND UNCONVENTIONAL WARFARE. By Sam C. Sarkesian (Greenwood Press, 1986. 344 Pages. \$37.95). Reviewed by Colonel James B. Motley, United States Army, Retired.

To the serious student of national security, the author of this book needs no introduction. A retired United States Army officer, he has established impeccable credentials as a scholar, author, and guest speaker. Currently, Doctor Sarkesian is professor of political science and chairman of the Inter-University Seminar on Armed Forces at Loyola University in Chicago.

The theme of his book is that the United States' political-military posture and its capability to deal effectively with unconventional conflicts are inadequate and ineffective. Underlying this theme is his view that unconventional conflicts are endemic to the Third World.

Sarkesian notes that many of the challenges associated with such conflicts cannot be met solely by negotiation, economic aid, or any of a variety of traditional means. He says that "unless the United States makes a determined effort to develop a political-military posture and capability to respond to unconventional conflicts, it is likely to find itself undermined in many areas in the world and faced with potentially serious security threats to its own survival." He examines the "essential elements" that are needed to develop a proper posture.

This is a well-written and timely book by a highly respected practitioner of the trade. It will appeal to policymakers and professional military men. It should be required reading at all senior service colleges.

THE MARCH TO THE SEA AND BEYOND: SHERMAN'S TROOPS IN THE SAVANNAH AND CAROLINAS CAMPAIGN. By Joseph T. Glatthaar (New York University Press, 1985. 318 Pages. \$27.95). Reviewed by Major Don Rightmyer, United States Air Force.

The author is a member of the Combat Studies Institute at Fort Leavenworth. He wrote this book when he realized that the men who marched with General William T. Sherman on his campaign through Georgia and the Carolinas have been almost totally ignored.

This is definitely not a typical Civil War campaign history. The reader will



not come away with an in-depth, blow-by-blow understanding of Sherman's movements and engagements. What he will find is a delightful insight into this "army of Westerners," which looked, thought, and fought differently from its Union brothers then in the trenches before Petersburg.

Glatthaar has based his writing on thorough research in the first-hand, personal accounts and views of Union soldiers of all ranks. He has collected their views on a variety of subjects and examines four major aspects of the Sherman campaign: camp life, the march,

foraging, and destruction of the South. He concludes with a chapter that covers the various engagements in which the army fought. The book also has voluminous footnotes and a complete bibliography.

The book offers some thought-provoking insights into the feelings of the Midwestern citizen-soldier of the Civil War era. For that reason and for others, those of us in the military profession will find it well worth reading.

JANE'S MILITARY VEHICLES AND GROUND SUPPORT EQUIPMENT, 1987. Eighth Edition. Edited by Christopher F. Foss and Terry J. Gander (Jane's, 1987. 969 Pages).

The editors feel that events during 1986 offered many useful military lessons, the chief ones being the effects of nuclear fallout and of chemical warfare weapons. The Iraq-Iran war, during which Iraq has used chemical weapons, has offered lessons as well, particularly in showing the need for adequate numbers of good armored repair and recovery vehicles in armored and mechanized forces. These, of course, receive the editors' attention in a 29-page section early in the book. They also offer the latest information they have, complete with illustrations and specifications, about armored engineer vehicles, bridging systems, mine warfare equipment, transport equipment, demolition equipment, NBC equipment, and such miscellaneous equipment as assault boats and landing craft, generators, and camouflage equipment and decoys. A seven-page addendum updates the main body of the book. The editors conclude by emphasizing the growing importance of Red China in the world armament market and suggest that it is perhaps the largest of the new arms-dealing nations.

A HISTORY OF THE SAS REGIMENT. By John Strawson (David and Charles, 1986. 292 Pages. \$28.00). Reviewed by Captain F.R. Hayse, United States Army.

The author has written numerous books on military matters, and in this one

has produced a well-written historical work that lifts, at least partially, the veil of mystery and secrecy that surrounds the British Special Air Service and its operations.

Founded by David Stirling in North Africa during World War II, it took part in the fighting there and throughout the Mediterranean. Strawson covers those operations in detail, as well as the SAS's post-war operations in Malaya, Oman, Borneo, Aden, and the Falklands. Understandably vague, however, are the chapters on SAS participation in Northern Ireland operations and the hostage crisis at the Iranian embassy in London.

As an unofficial (but authorized) history of the SAS regiment, Strawson's book is a well-written and illustrated account of the unit's illustrious exploits. For those interested in the use of special forces in economy of force missions or as a force multiplier in more conventional operations, this book will offer a look into how such units can function successfully. Although the author admits his account "cannot be comprehensive," it is certainly representative and is worthwhile reading for infantrymen everywhere.

SOLDIER, SOLDIER. By Tony Parker (David and Charles, 1986. 244 Pages. \$22.50).

LIFE IN THE RANK AND FILE. Edited by David R. Segal and H. Wallace Sinaiko (Pergamon-Brassey's, 1986. 283 Pages. \$30.00). Both books reviewed by Captain Harold E. Raugh, Jr., United States Army.

These two books complement each other nicely and should be of interest to all infantrymen.

The first is an honest and enlightening book that consists of first-hand accounts from and interviews with British soldiers, former British soldiers, and their wives. The author travelled throughout the world interviewing soldiers and their dependents on such matters as reasons for joining the army, pay, and leadership. The candid material shows the "real" British Army, warts and all. It is recommended for those individuals who have not been in the "trenches" for some time and want to keep their thumbs on the pulse of reality, and for those who simply

want to know about soldiers and their way of life.

The second book is different. It is a collection of scholarly and well-researched essays on enlisted forces in the United States, Australia, Canada, and the United Kingdom. The essays, written by noted sociologists, historians, and professional military men, provide a wealth of information on current as well as controversial topics, including drug abuse, manpower and personnel problems, pay and benefits, the role of women in the military services, and the all-volunteer force. The book goes a long way toward filling in the void that has existed in the study and understanding of enlisted soldiers in the major English-speaking nations.

Both of these volumes are indispensable reading for all infantrymen who are, or aspire to be, leaders of men.

RECENT AND RECOMMENDED

GUADALCANAL: STARVATION ISLAND. By Eric Hammel. Crown, 1987. 448 Pages. \$24.95.
SECOND INDOCHINA WAR SYMPOSIUM: PAPERS AND COMMENTARY. Edited by John Schlight. Center of Military History, Department of the Army, 1986. 276 Pages. Softbound.

THE SERVICEMEMBER'S LEGAL GUIDE. By Jonathan P. Tomes. Stackpole, 1987. 224 Pages. \$14.95, Softbound.

THE ARMIES OF THE NATO NATIONS. First Updated English Language Edition. Vienna: Herold Publishers, 1986. 704 Pages. AS195, Softbound.

KOMMANDANTENHANDBUCH: GRUPPE, ZUG, KOMPANIE. By Engelbert Lagler. Vienna: Herold Publishers, 1987. 296 Pages. AS80, Softbound.

THE ENLISTED SOLDIER'S GUIDE. First Edition. By Dennis D. Perez. Stackpole, 1986. 224 Pages. \$11.95, Softbound.

THE NORMANS. By David Nicolle. Color Plates by Angus McBride. Elite Series Number 9. Osprey, 1987. 65 Pages. Softbound.

GERMAN MEDIEVAL ARMIES, 1300-1500. By Christopher Gravett. Color Plates by Angus McBride. Men-at-Arms Series Number 166. Osprey, 1985. 48 Pages. \$7.95, Softbound.

BRUNSWICK TROOPS, 1809-1815. By Otto Von Pivka. Color Plates by Bryan Fosten. Men-

at-Arms Series Number 167. Osprey, 1985. 48 Pages. \$7.95, Softbound.

PRUSSIAN CAVALRY OF THE NAPOLEONIC WARS (2): 1807-1815. By Peter Hofschroer. Color Plates by Bryan Fosten. Men-at-Arms Series Number 172. Osprey, 1986. 48 Pages. \$7.95, Softbound.

ROME'S ENEMIES (3); PARTHIANS AND SASSANID PERSIANS. By Peter Wilcox. Color Plates by Angus McBride. Men-at-Arms Series Number 175. Osprey, 1986. 48 Pages. \$7.95, Softbound.

AUSTRIAN ARMY OF THE NAPOLEONIC WARS (1): INFANTRY. By Philip Haythornthwaite. Color Plates by Bryan Fosten. Men-at-Arms Series Number 176. Osprey, 1986. 48 Pages. \$7.95, Softbound.

ROME'S ENEMIES (4): SPANISH ARMIES, 218 B.C.-19 B.C. By Rafael Trevino. Color Plates by Angus McBride. Men-at-Arms Series Number 180. Osprey, 1986. 48 Pages. \$7.95, Softbound.

AUSTRIAN ARMY OF THE NAPOLEONIC WARS (2): CAVALRY. By Philip Haythornthwaite. Color Plates by Bryan Fosten. Men-at-Arms Series Number 181. Osprey, 1986. 48 Pages. \$7.95, Softbound.

BRITISH BATTLE INSIGNIA (1); 1914-1918. Text and color plates by Mike Chappel. Men-at-Arms Series Number 182. Osprey, 1986. 48 Pages. \$7.95, Softbound.

MODERN AFRICAN WARS (1): Rhodesia, 1965-1980. By Peter Abbott and Philip Botham. Color Plates by Mike Chappell. Men-at-Arms Series Number 183. Osprey, 1986. 48 Pages. \$7.95, Softbound.

COMBAT HELICOPTERS SINCE 1942. By Kenneth Munson and Alec Lumsden. Sterling, 1986. 198 Pages. \$9.95, Softbound.

BRITISH COMBAT VEHICLES TODAY. By Simon Dunstan. Tanks Illustrated Number 23. Sterling, 1986. 72 Pages. \$7.95, Softbound.

THE TERRORISM SURVIVAL GUIDE. By Andy Lightbody. Dell Books, 1987. 55 Pages. \$2.95, Softbound.

HOW TO AVOID, PREPARE FOR, AND SURVIVE BEING TAKEN HOSTAGE: A GUIDE FOR EXECUTIVES AND TRAVELLERS. International Security and Terrorism Series, Number 1. DIANE, 1987. 57 Pages. \$17.95.

BATTLEFIELD MAP OF SAIPAN, 1944, JAPANESE MANDATED ISLANDS. Researched by William H. Stewart. Marianas Visitors Bureau, Box 861, Saipan, C.M. 96950, 1986. \$3.50 Mailing Charge.

BURMA: THE UNTOLD STORY. By Won-loy Chan. Presidio, 1986. 138 Pages. \$14.95.

AUGUSTINE'S LAWS. By Norman R. Augustine. Viking, 1986. 380 Pages. \$18.95.

SURVIVAL KNIFE REFERENCE GUIDE. By Douglas C. Berner. Bee Tree Productions (PO Box 9156, Asheville, NC 28815), 1986. 207 Pages. \$12.95, Softbound.

RUSI/BRASSEY'S DEFENCE HANDBOOK, 1986. 96th Edition. Pergamon, 1986. 381 Pages. \$20.00.

NOTE TO READERS: All of the books mentioned in this review section may be purchased directly from the publisher or from your nearest book dealer. We do not sell books. We will furnish a publisher's address on request.



From The Editor

PROFESSIONAL BULLETIN

This is our first professional bulletin, which has been prepared in accordance with guidelines laid down by Headquarters TRADOC. Long-time INFANTRY readers will note a number of internal format changes, a different text paper stock, and the absence of color except on the cover. But the professional content remains what it has been for 67 years and what we hope it will be for the next century.

For the time being we will continue our previous mailing policies. At some time in the future, however, the Army's Publication and Printing Agency will begin to distribute the appropriated fund copies of INFANTRY to its Form 12 account holders only. We will then no longer mail copies directly to units, staff offices, and other operating agencies as we do now.

We will keep our nonappropriated fund subscription service and will continue to sell subscriptions and offer concurrent membership in the Infantry Association. If you know someone who might want to subscribe to INFANTRY but who does not know about it or does not know how to enter a subscription, please send us that person's name and address and we'll see that he gets the word, plus a free copy of one of our recent issues.

COMING IN INFANTRY

"TOW Gunnery," by Lieutenant Colonel Gregory C. Camp and Captain David H. Olwell.

"Combat Safety," by Captain Bryan G. Watson.

"Infantry Battle Dress SOP," by Captain Noyes B. Livingston III.



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